Analytical Resources, Incorporated
Analytical Chemists and Consultants

14 May 2021

Delaney Peterson
Anchor QEA, LLC
1201 3rd Ave, Suite 2600
Seattle, WA 98101

RE: Gasco Siltronic - US Moorings

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
21D0182	N/A

Shelly Fishel

Digitally signed by Shelly Fishel
Date: 2021.05.14 13:11:07 -07'00'

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclosed Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Shelly Fishel, Project Manager

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006-012

ANCHOR QEA
1201 3rd Avenue, Suite 2600, Seattle, WA 98101

ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

21D0182

POC: # Delaney Peterson (360-715-2707)
1605 Cornwall Avenue, Bellingham, WA 98225

Project: GascoSiltronic: US Moorings
Client: NW Natural

COC ID: ARI-20210415-123252
Sample Custodian: jm, cd, dp
Lab: Analytical Resources Inc.

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collected Date	Collected Time	Containers #	Lab QC*	Test Request	Method	TAT**	Preservative
001	SG-FB-2104151048	FB	SQ	04/15/2021	10:48	2	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	
002	SG-RB-2104151020	RB	SQ	04/15/2021	10:20	2	☐				
								PAHs and Alk. PAHs	SW8270ESIM	30	

Comment:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Print Name D. Peterson	Print Name Jacob Walter	Print Name	Print Name	Print Name	Print Name
Company AQ	Company ANZ	Company	Company	Company	Company
Date/Time 4.15.21 1400	Date/Time 04/16/2021 1070	Date/Time	Date/Time	Date/Time	Date/Time

Date Printed: 4/15/2021

* Lab QC Requested for sample when box is checked ** TAT = Turn Around Time in DAYS # POC = Project Point of Contact

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor QEA

Project Name: Cosco Shipping US Moorings

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 21D0182

Tracking No: 7734 5848 3583 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of the cooler?	(YES)	NO
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)

Time 1030 2.5

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D00506

Cooler Accepted by: JSm Date: 04/16/2021 Time: 1030

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		(YES)	NO (4.5C)
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
How were bottles sealed in plastic bags?	Individually	(Grouped)	Not
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Were the sample(s) split by ARI? (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: SK Date: 4/16/21 Time: 1200 Labels checked by: SK

** *Notify Project Manager of discrepancies or concerns* **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number:	[none]	**Reported:**
Seattle, WA 98101	Project Manager:	Delaney Peterson	05/14/2021 12:56

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
21D0182-01	SG-FB-2104151048	Water	04/15/21 10:48	04/16/21 10:30
21D0182-02	SG-RB-2104151020	Water	04/15/21 10:20	04/16/21 10:30

Anchor QEA, LLC	Project: Gasco Siltronic - US Moorings	
1201 3rd Ave, Suite 2600	Project Number: [none]	**Reported:**
Seattle WA, 98101	Project Manager: Delaney Peterson	14-May-2021 12:56

Case Narrative

Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Work Order: 21D0182

Sample receipt

Samples as listed on the preceding page were received 16-Apr-2021 10:30 under ARI work order 21D0182. For details regarding sample receipt, please refer to the Cooler Receipt Form.

Alkyl PAH - EPA Method SW8270E-SIM

The sample(s) were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements except Acenaphthylene and 2,3,5-Trimethylnaphthalene which were out of control high in the initial calibration verification (ICV). All samples which contain analyte have been flagged with a "Q" qualifier.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blank(s) were clean at the reporting limits.

The blank spike (BS/LCS) percent recoveries were within control limits.

QUALIFIERS AND NOTES

Qualifier	Definition
U	This analyte is not detected above the reporting limit (RL) or if noted, not detected above the limit of detection (LOD).
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
J	Estimated concentration value detected below the reporting limit.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D1	Surrogate was not detected due to sample extract dilution
D	The reported value is from a dilution
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

SG-FB-2104151048

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-01 B	SDG:	21D0182
Sampled:	04/15/21 10:48	Prepared:	04/21/21 10:10	File ID:	NT1421043036.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 11:34
Batch:	BJD0501	Sequence:	SJD0345	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00001

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.046	J	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.100	U	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.013	J	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.010	J	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.008	J	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100

SG-FB-2104151048

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Parents

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-01 B	SDG:	21D0182
Sampled:	04/15/21 10:48	Prepared:	04/21/21 10:10	File ID:	NT1421043036.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 11:34
Batch:	BJD0501	Sequence:	SJD0345	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00001

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	2.01	67.1	30 - 160	
Acenaphthene-d10	3.0000	2.20	73.5	30 - 160	
Phenanthrene-d10	3.0000	2.21	73.6	30 - 160	
Chrysene-d12	3.0000	2.27	75.6	30 - 160	
Perylene-d12	3.0000	1.68	56.1	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043036.D

Date : 01-MAY-2021 11:34

Client ID:

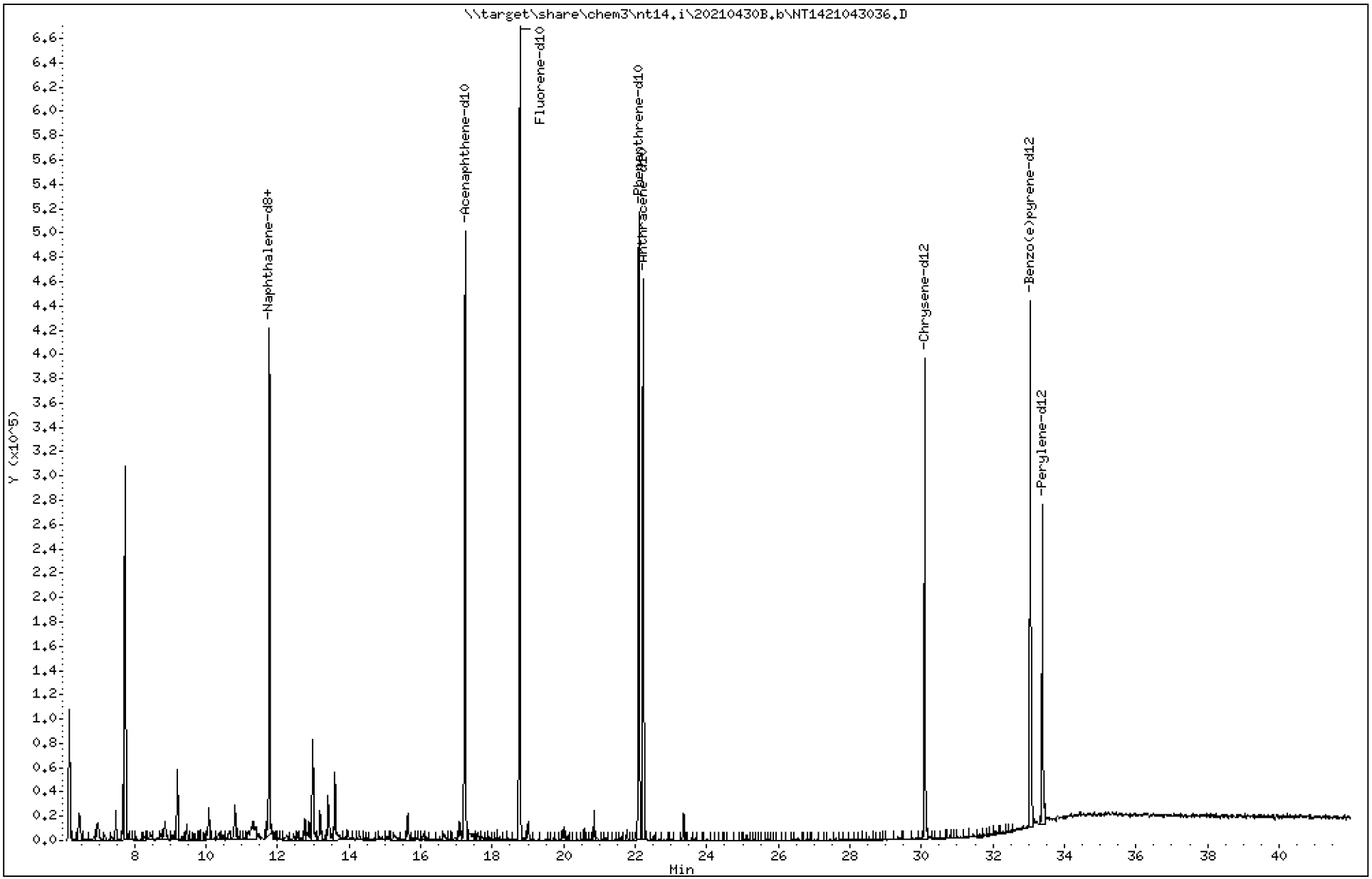
Instrument: nt14.i

Sample Info: 21D0182-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

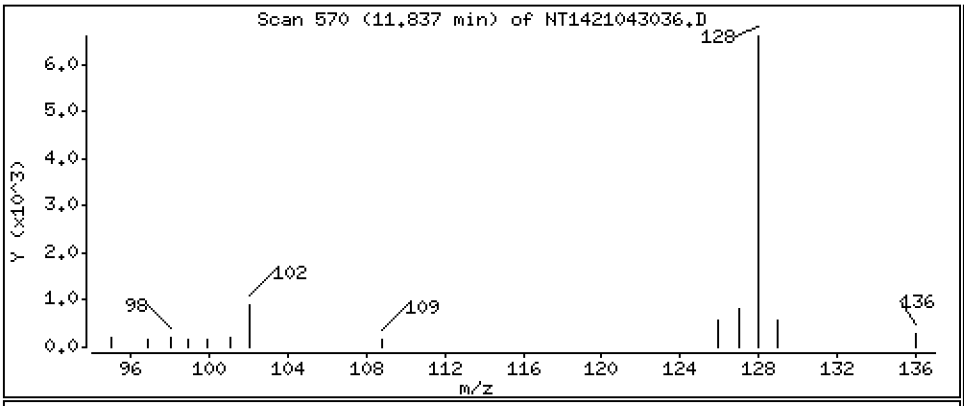
Operator: VTS

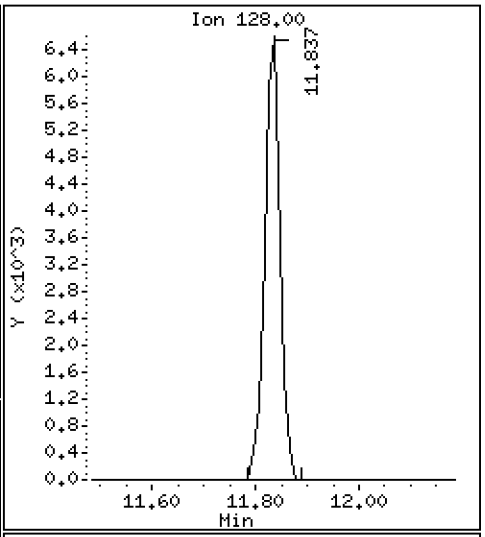
Column phase: Rxi-17Sil MS

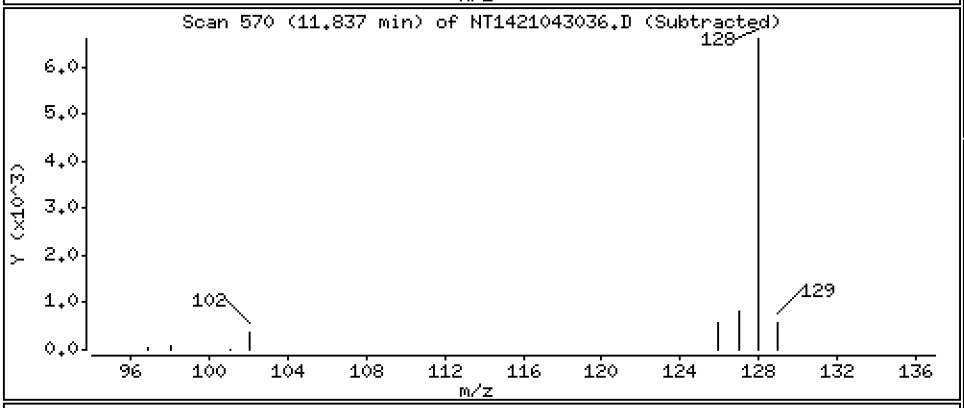
Column diameter: 0.25

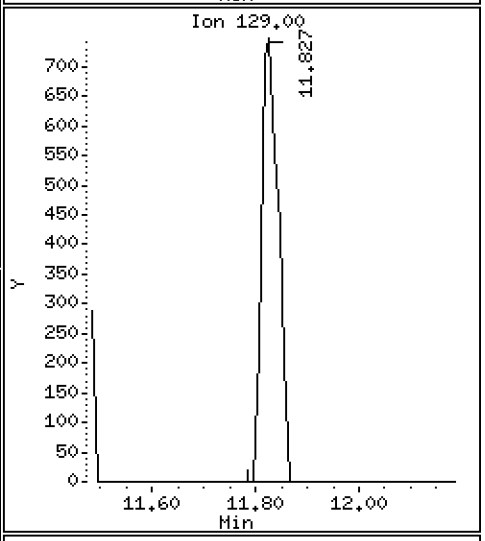
7 Naphthalene

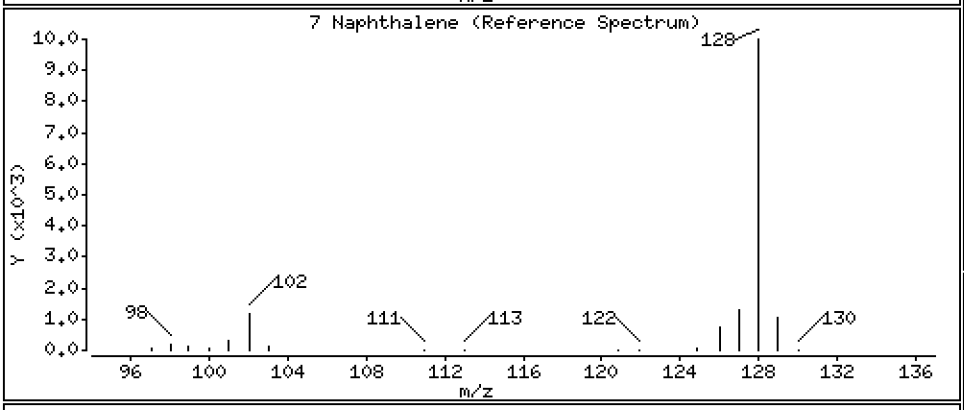
Concentration: 0.04606 ug/mL

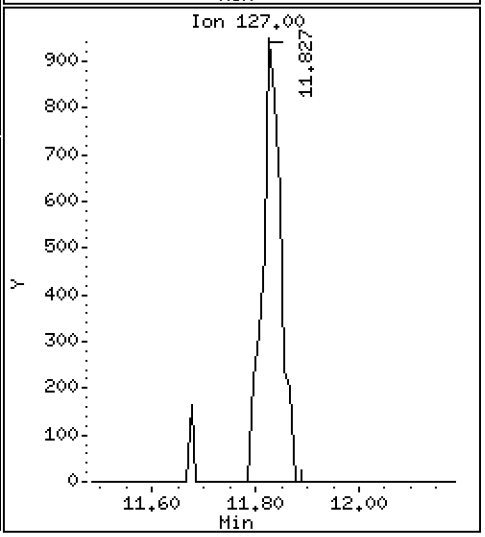


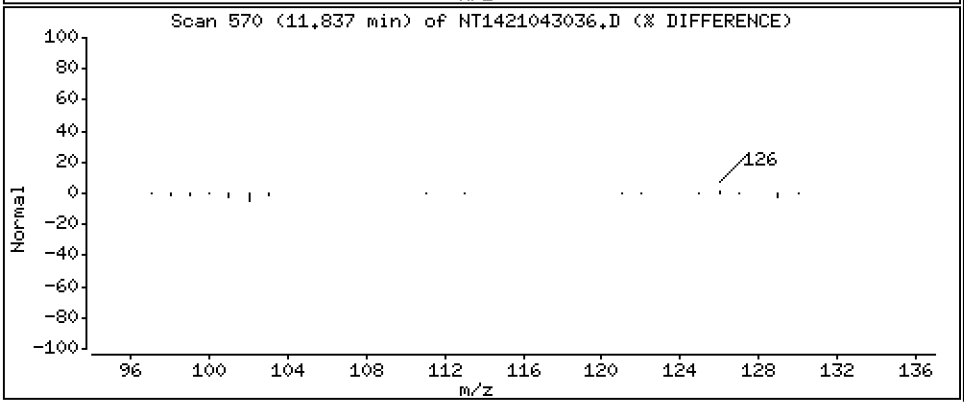












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Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

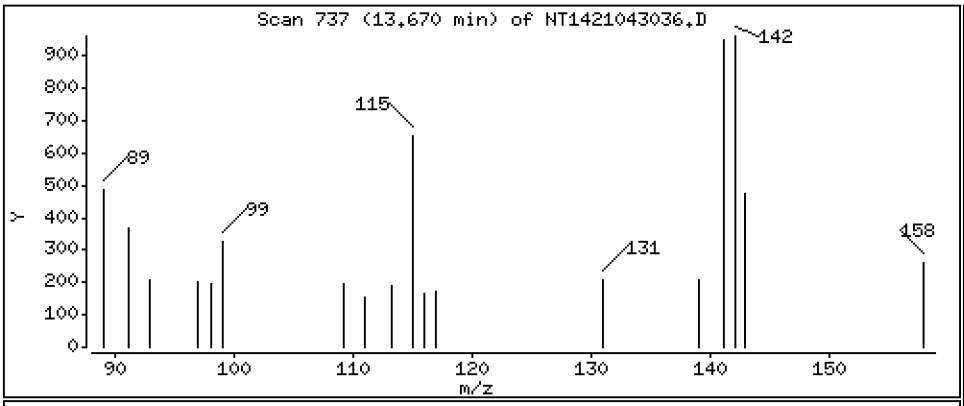
Operator: VTS

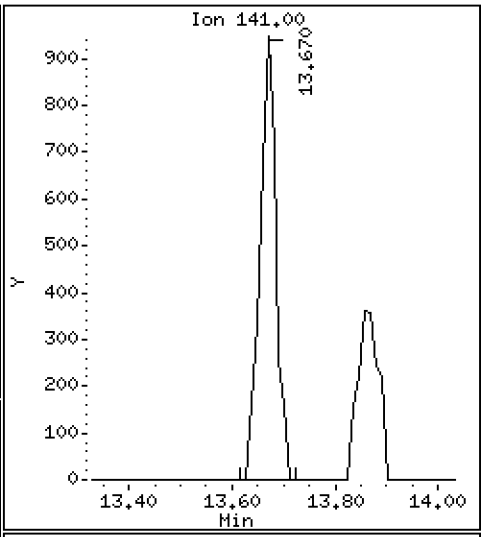
Column phase: Rxi-17Sil MS

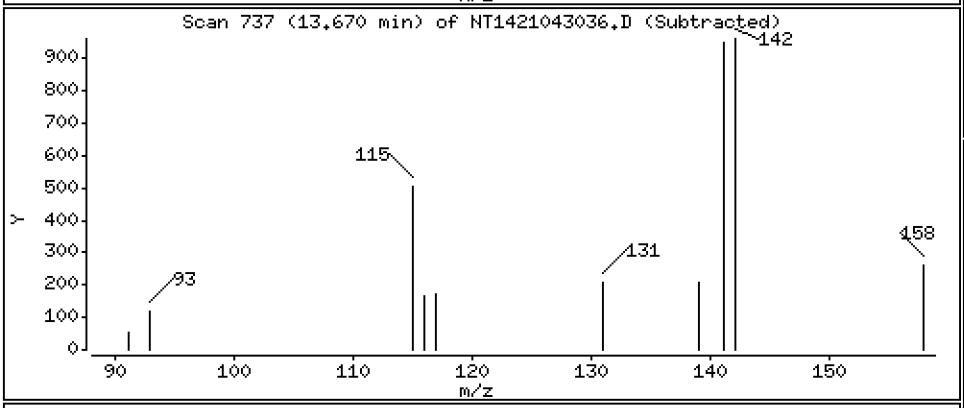
Column diameter: 0.25

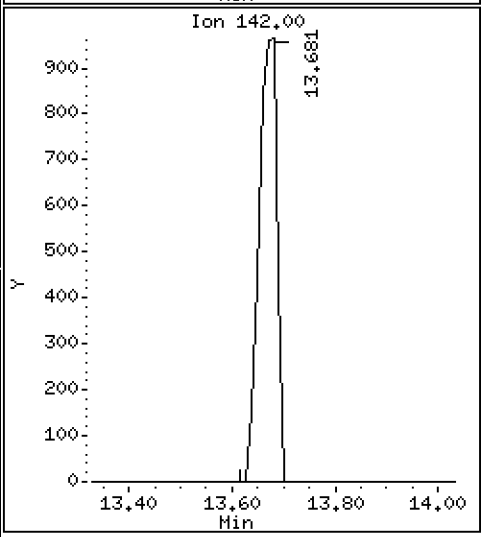
16 2-Methylnaphthalene

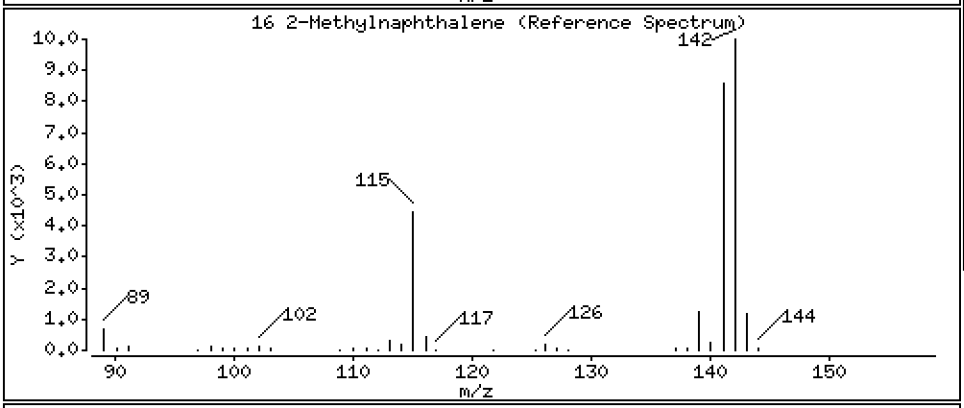
Concentration: 0.01344 ug/mL

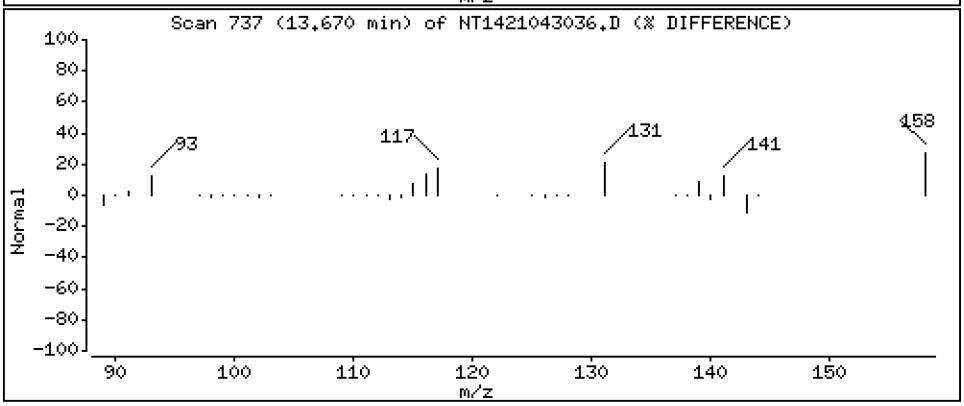












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043036.D

Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

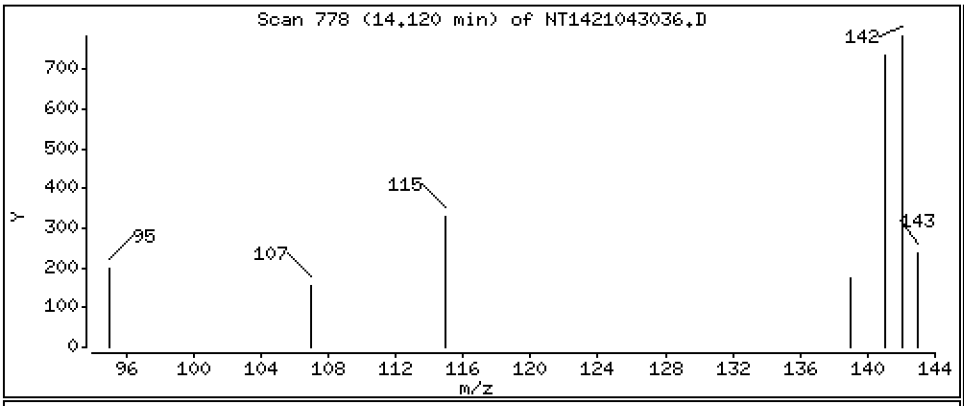
Operator: VTS

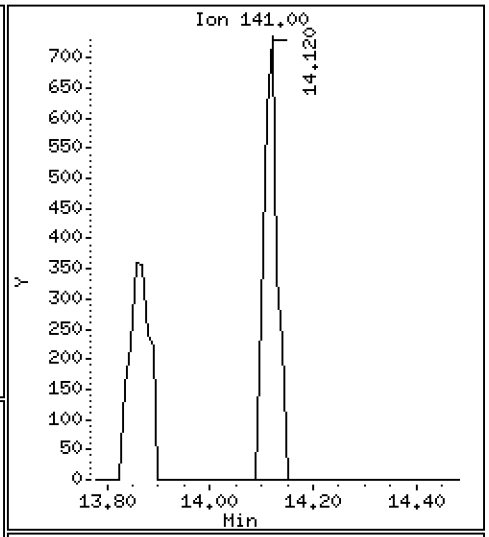
Column phase: Rxi-17Sil MS

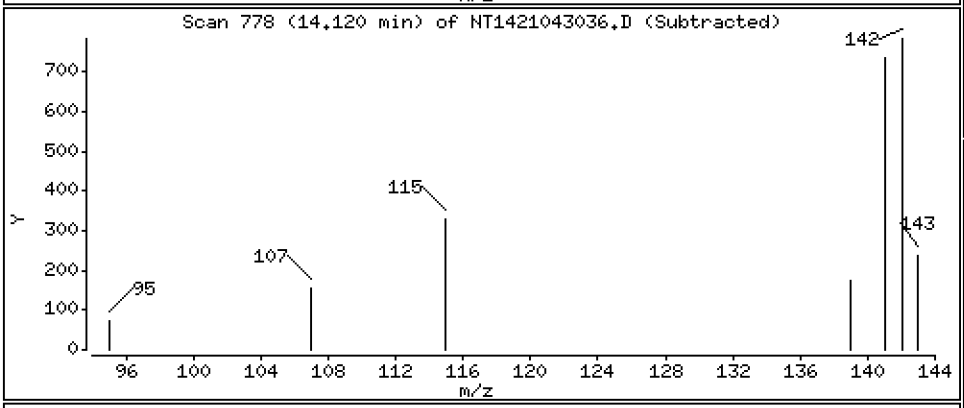
Column diameter: 0.25

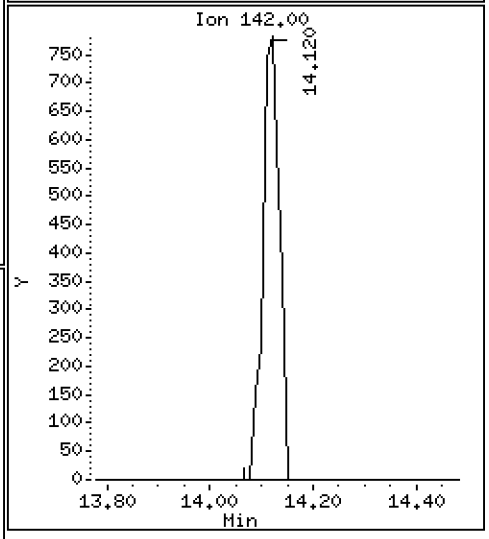
17 1-methylnaphthalene

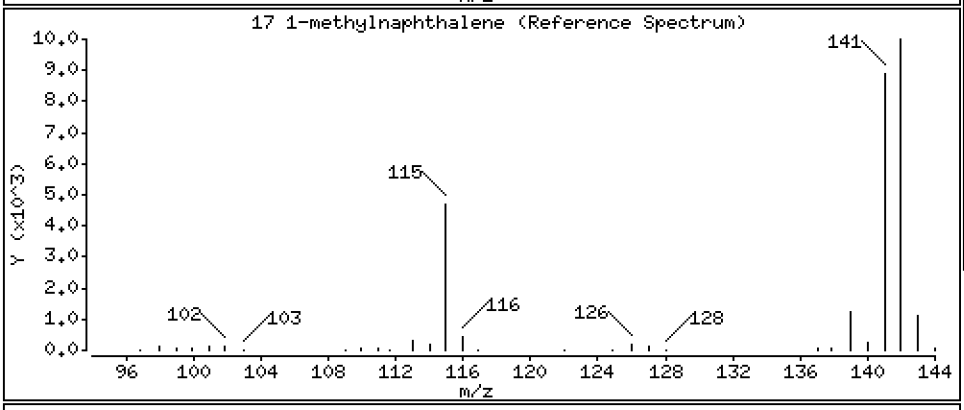
Concentration: 0.009557 ug/mL

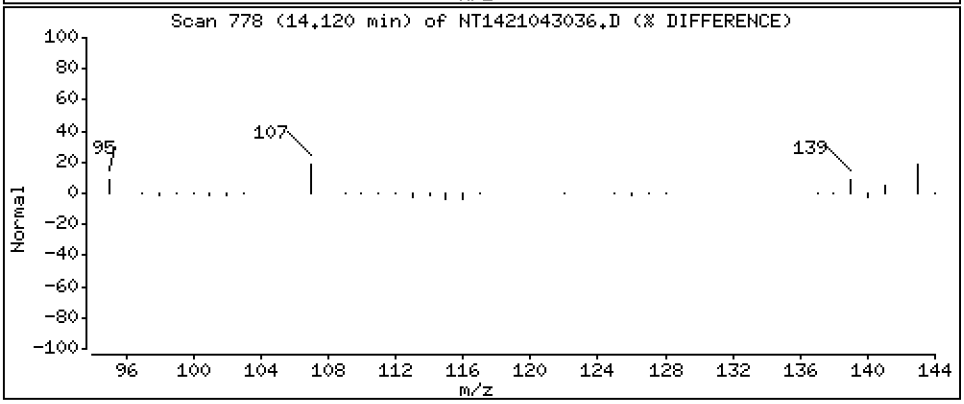












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043036.D

Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

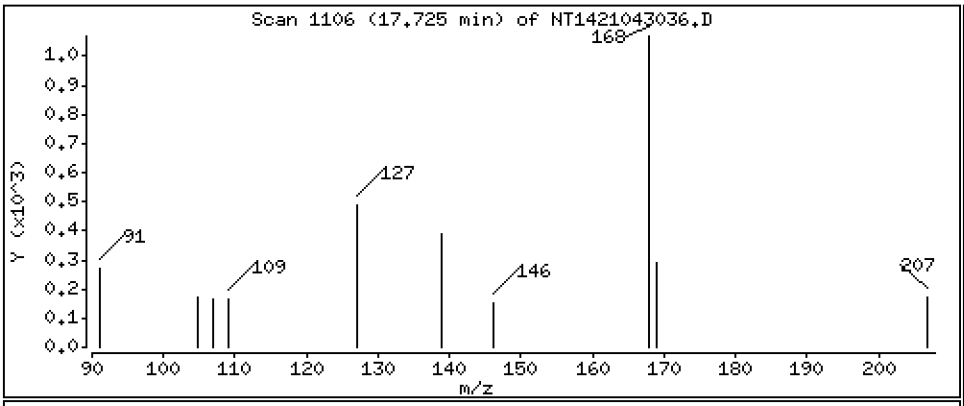
Operator: VTS

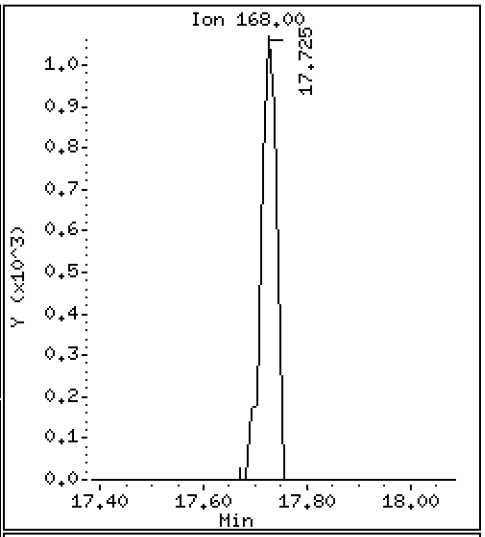
Column phase: Rxi-17Sil MS

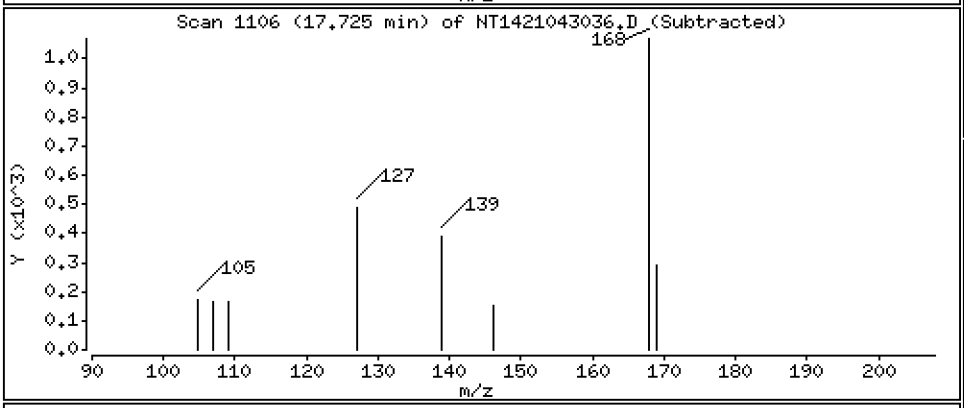
Column diameter: 0.25

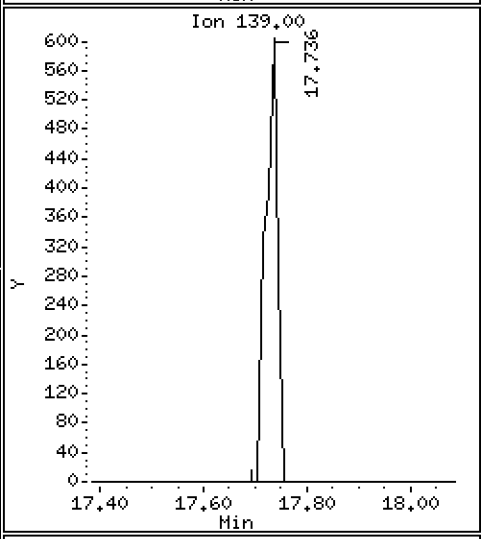
23 Dibenzofuran

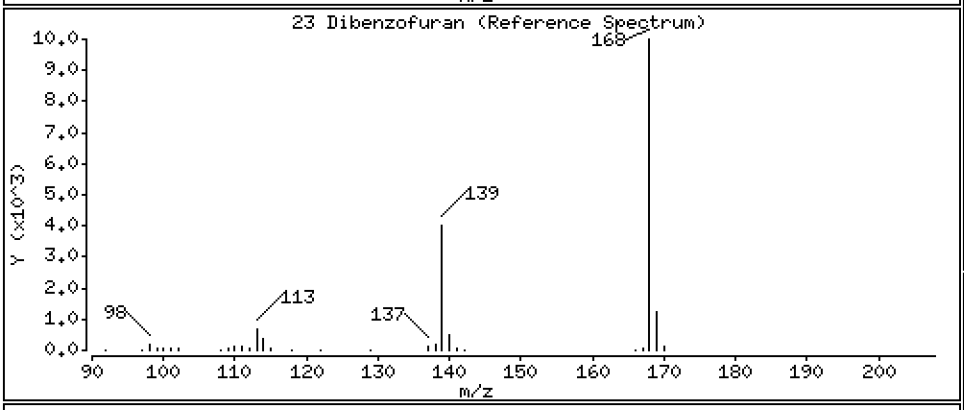
Concentration: 0.009799 ug/mL

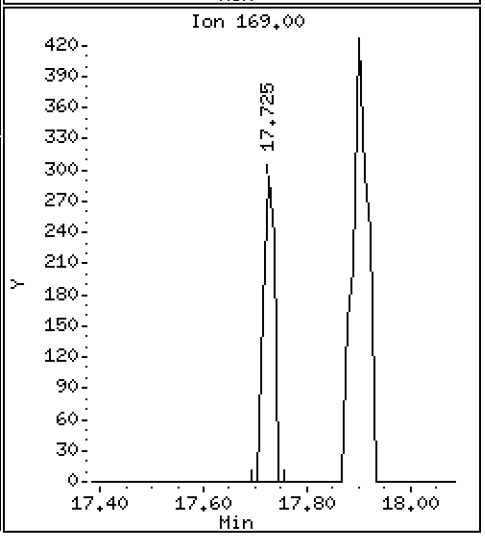


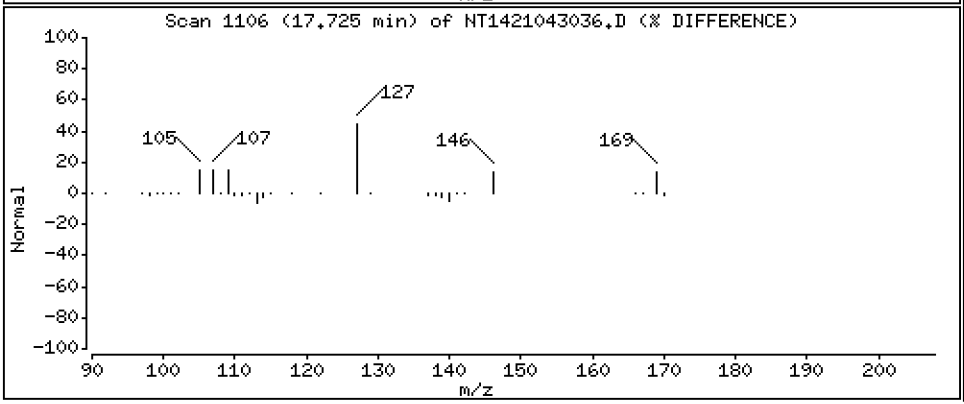












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043036.D
Lab Smp Id: 21D0182-01
Inj Date : 01-MAY-2021 11:34
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0182-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 01-May-2021 08:03 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.766	11.776	(0.627)	591529	2.01205	2.012(R)
	7 Naphthalene	128	11.836	11.836	(0.631)	13773	0.04606	0.04606
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	13.669	13.680	(0.728)	2144	0.01344	0.01344
	17 1-methylnaphthalene	141	14.120	14.131	(0.752)	1445	0.00956	0.009557
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	316334	2.20362	2.204(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	17.724	17.735	(0.944)	2360	0.00980	0.009799
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.772	18.772	(1.000)	509426	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.104	22.104	(0.995)	530075	2.20937	2.209(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.214	22.214	(1.000)	443976	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.095	30.095	(0.911)	354462	2.26817	2.268(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	430088	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	279004	1.68264	1.683(R)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043036.D
Lab Smp Id: 21D0182-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	509426	-3.29
250 Anthracene-d10	481292	240646	962584	443976	-7.75
251 Benzo(e)pyrene-d1	486825	243413	973650	430088	-11.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043036.D

Lab ID: 21D0182-01
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 11:34

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1421043024ICV.D

On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

SG-FB-2104151048

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-01 B	SDG:	21D0182
Sampled:	04/15/21 10:48	Prepared:	04/21/21 10:10	File ID:	NT1421043036S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 11:34
Batch:	BJD0501	Sequence:	SJD0347	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.021			0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.016	J		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.049			0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020

SG-FB-2104151048

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Ranges

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-01 B	SDG:	21D0182
Sampled:	04/15/21 10:48	Prepared:	04/21/21 10:10	File ID:	NT1421043036S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 11:34
Batch:	BJD0501	Sequence:	SJD0347	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430365.D

Page 1

Date : 01-MAY-2021 11:34

Client ID:

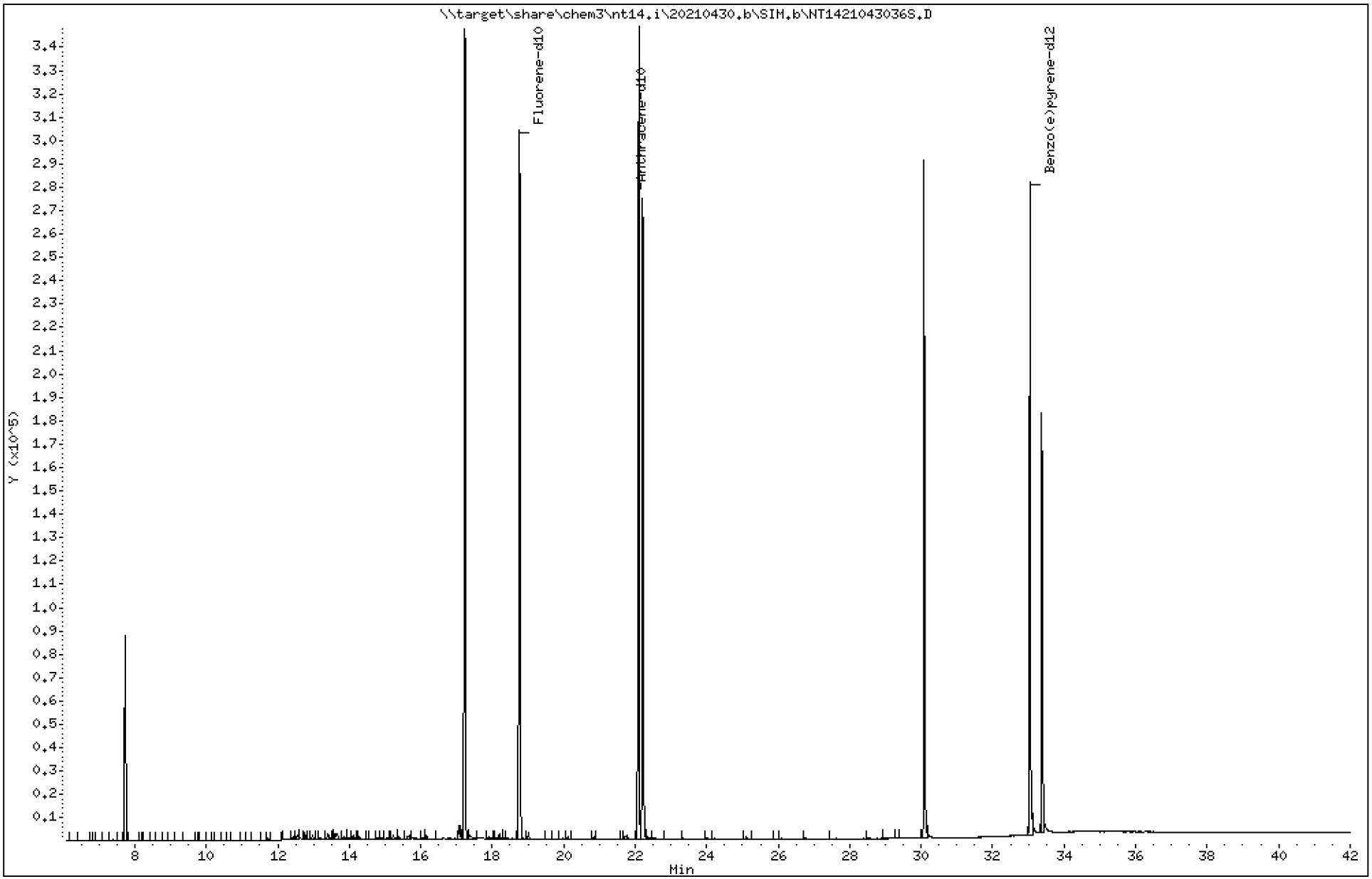
Instrument: nt14.i

Sample Info: 21D0182-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

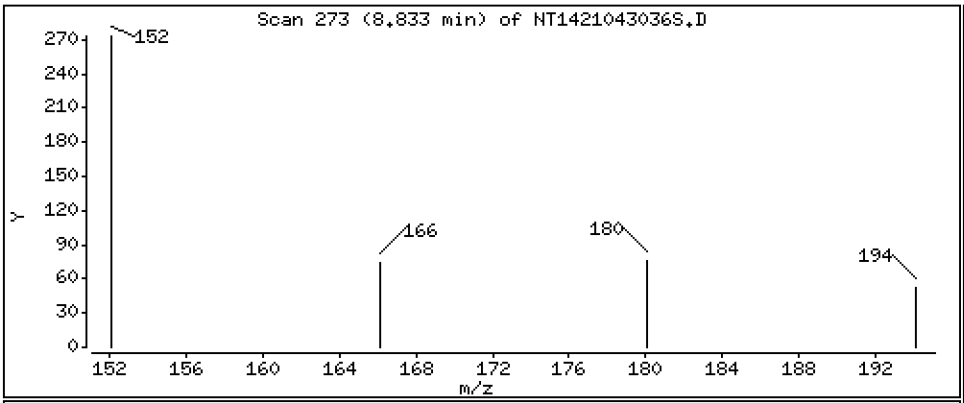
Operator: VTS

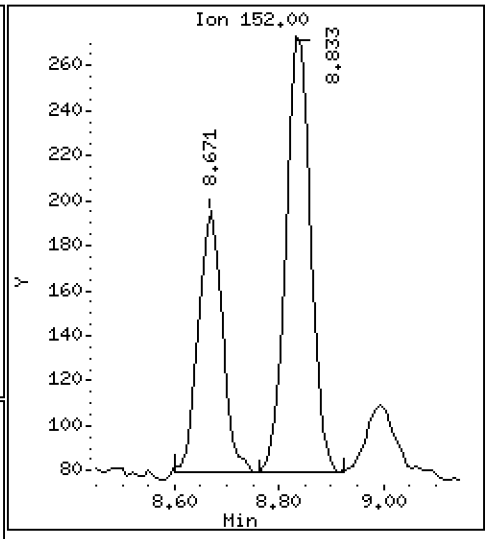
Column phase: Rxi-17Sil MS

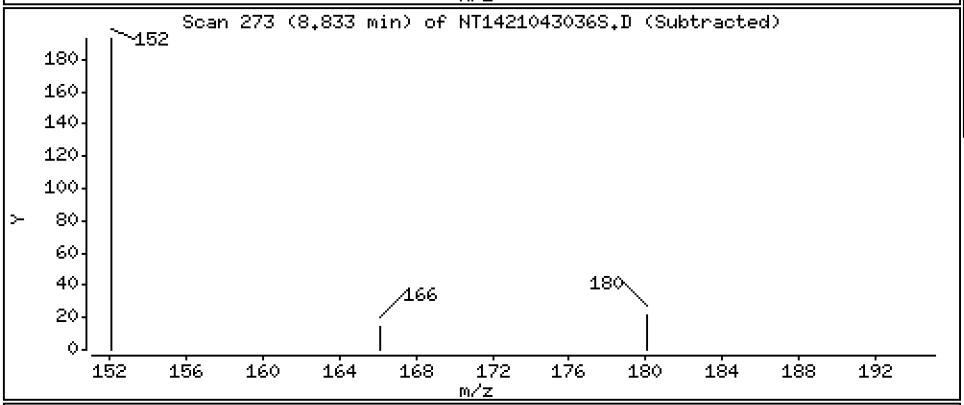
Column diameter: 0.25

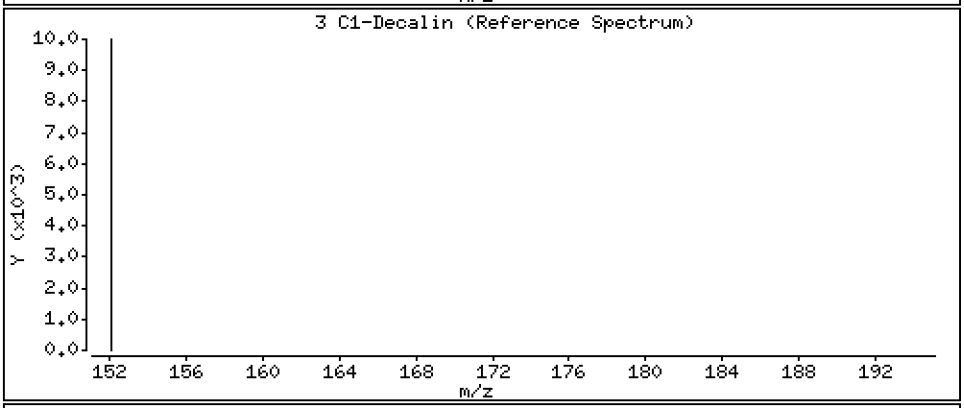
3 C1-Decalin

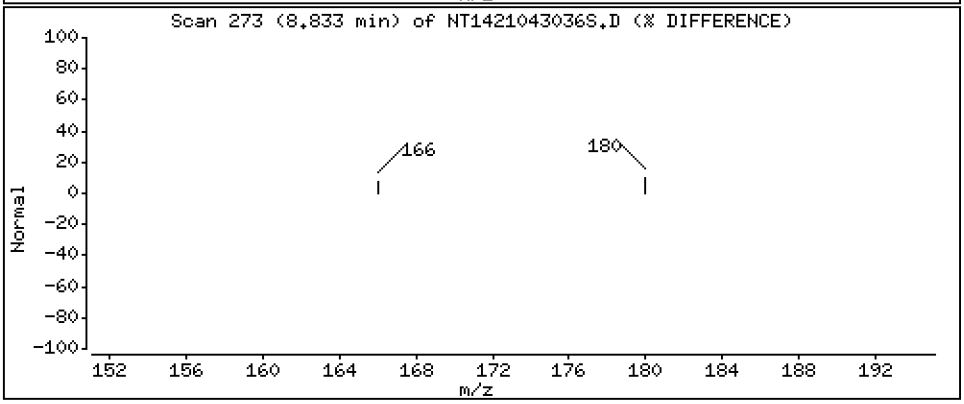
Concentration: 0.02081 ug/mL











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Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

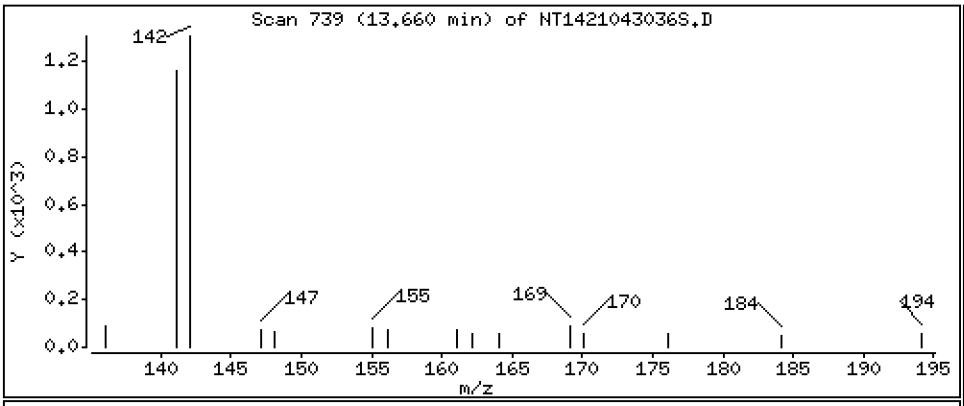
Operator: VTS

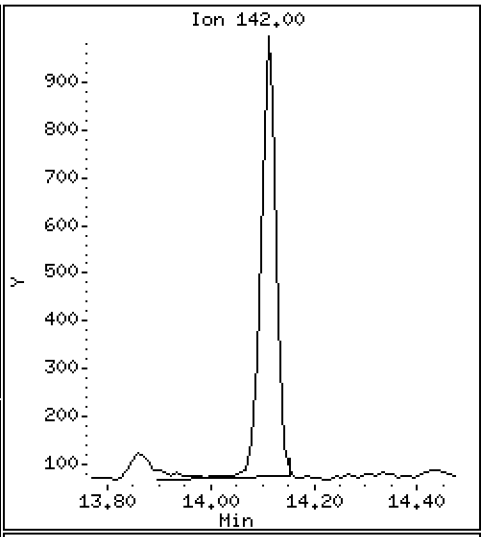
Column phase: Rxi-17Sil MS

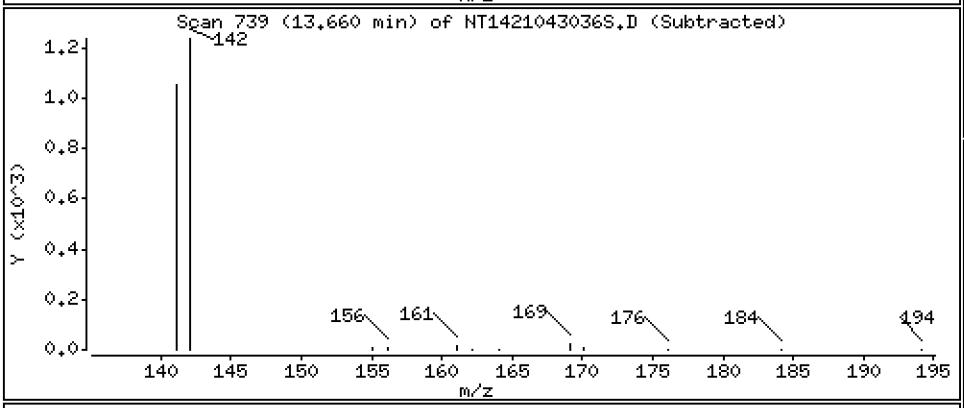
Column diameter: 0.25

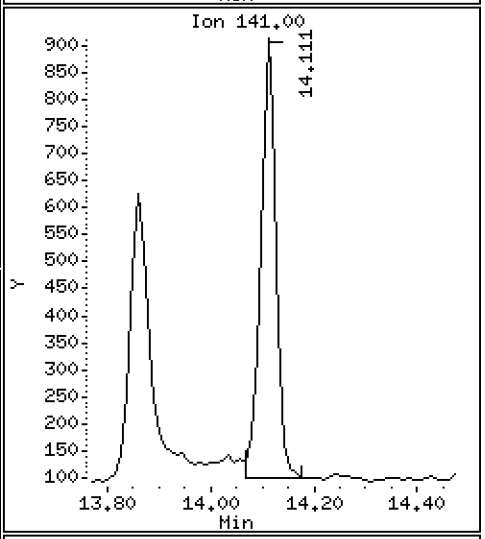
8 C1-Naphthalenes

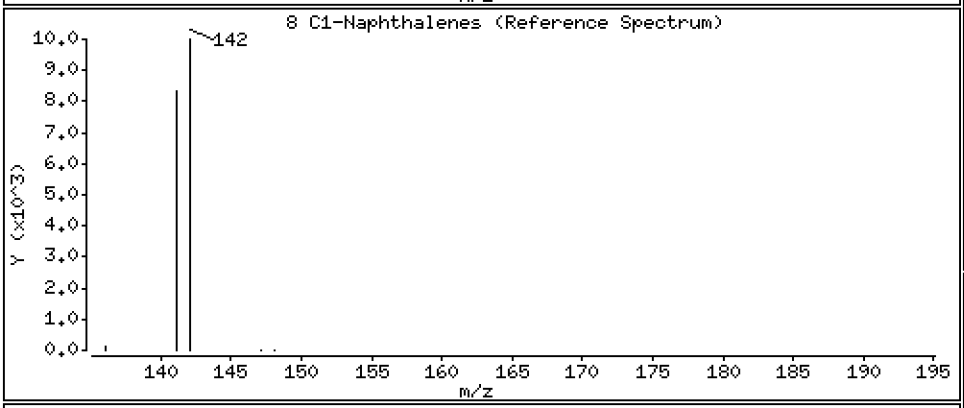
Concentration: 0.01564 ug/mL

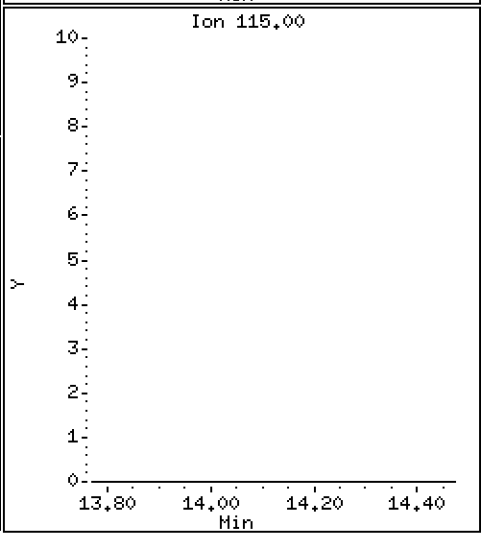


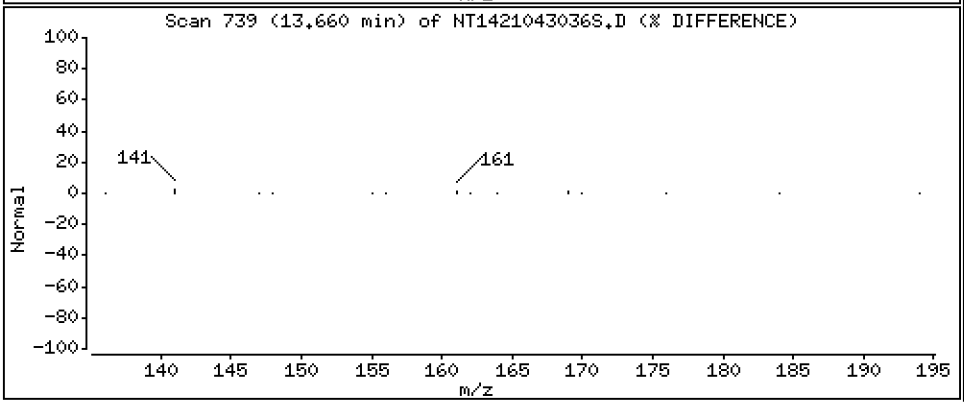












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Date : 01-MAY-2021 11:34

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-01

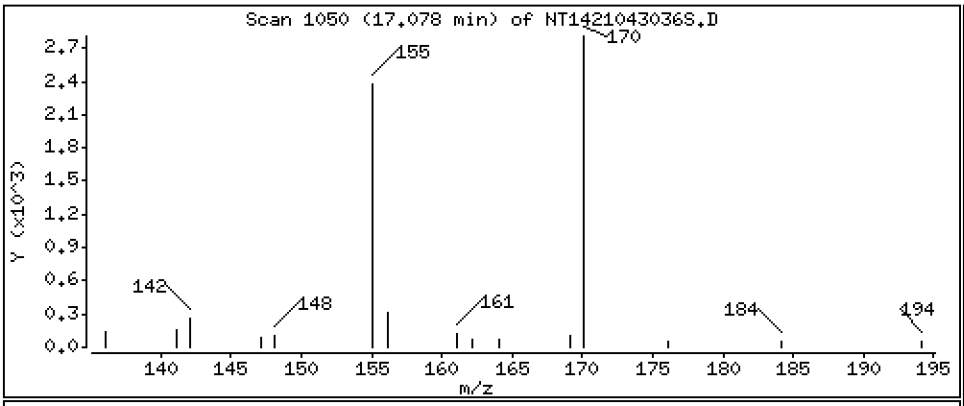
Operator: VTS

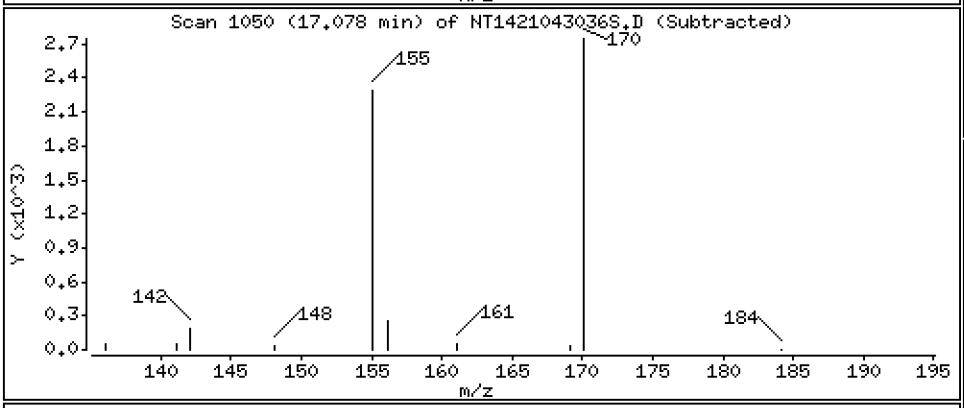
Column phase: Rxi-17Sil MS

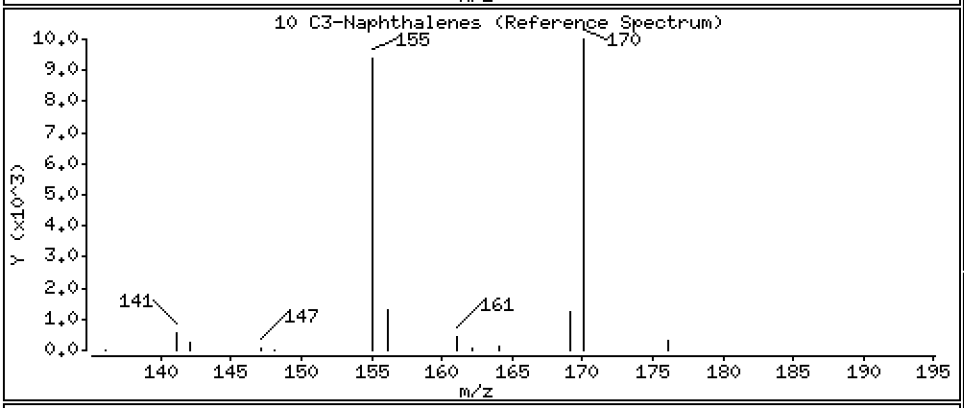
Column diameter: 0.25

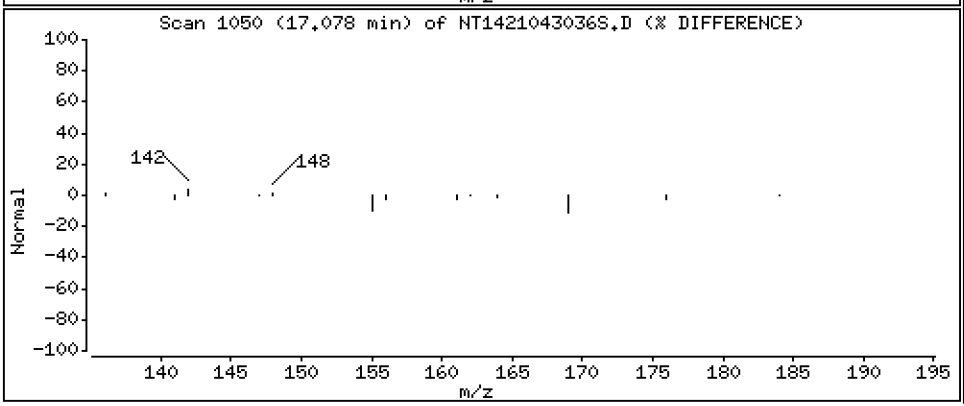
10 C3-Naphthalenes

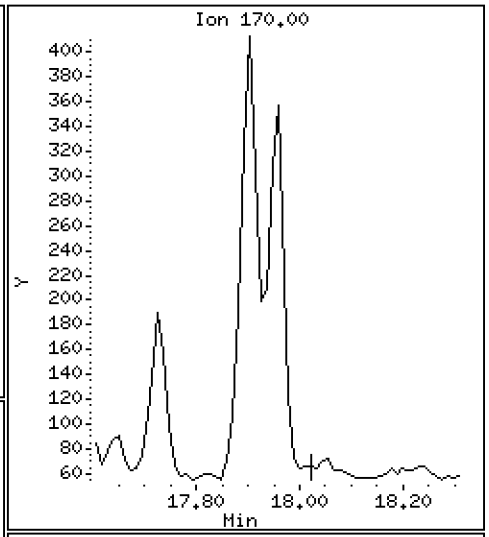
Concentration: 0.04875 ug/mL

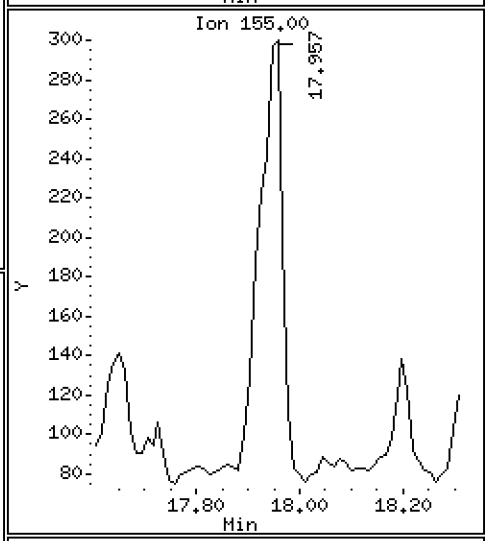


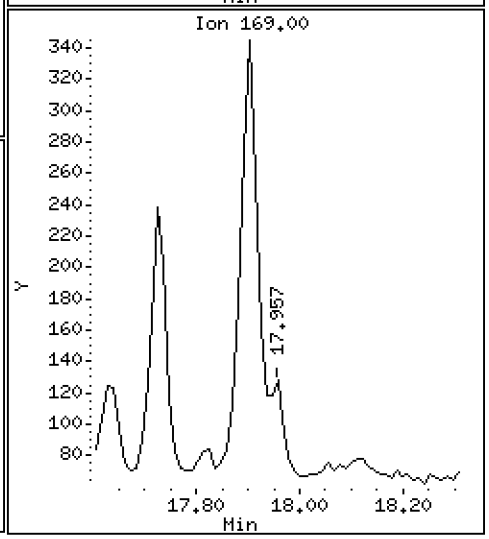












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043036S.D
Lab Smp Id: 21D0182-01
Inj Date : 01-MAY-2021 11:34
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0182-01
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 32
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
3	C1-Decalin	152	8.832	8.800	(0.471)	643	0.02081	0.02081
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	13.660	14.121	(0.728)	5516	0.01564	0.01564(M)
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	17.078	17.957	(0.910)	17191	0.04875	0.04875(M)
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.762	18.774	(1.000)	600781	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
* 250	Anthracene-d10	188	22.205	22.216	(1.000)	531825	2.00000	
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	Compound Not Detected.					
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59 C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60 C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61 C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
71 C1-Dibenzo(a)anthracenes	292	Compound Not Detected.					
* 251 Benzo(e)pyrene-d12	264	33.036	33.037	(1.000)	523336	2.00000	
72 C2-Dibenzo(a)anthracenes	306	Compound Not Detected.					
73 C3-Dibenzo(a)anthracenes	320	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043036S.D Calibration Time: 01:56
Lab Smp Id: 21D0182-01
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	615800	307900	1231600	600781	-2.44
250 Anthracene-d10	563384	281692	1126768	531825	-5.60
251 Benzo(e)pyrene-d1	606671	303336	1213342	523336	-13.74

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Quant Ion Manual Peak Adjustment Report

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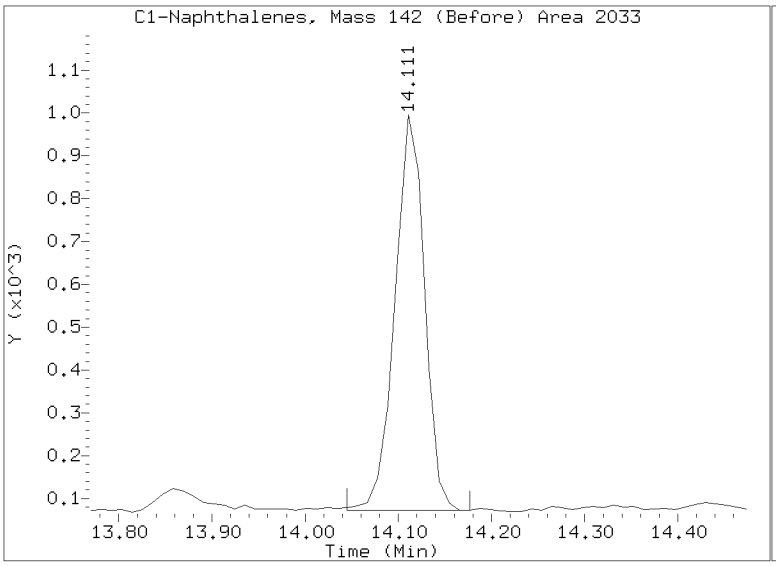
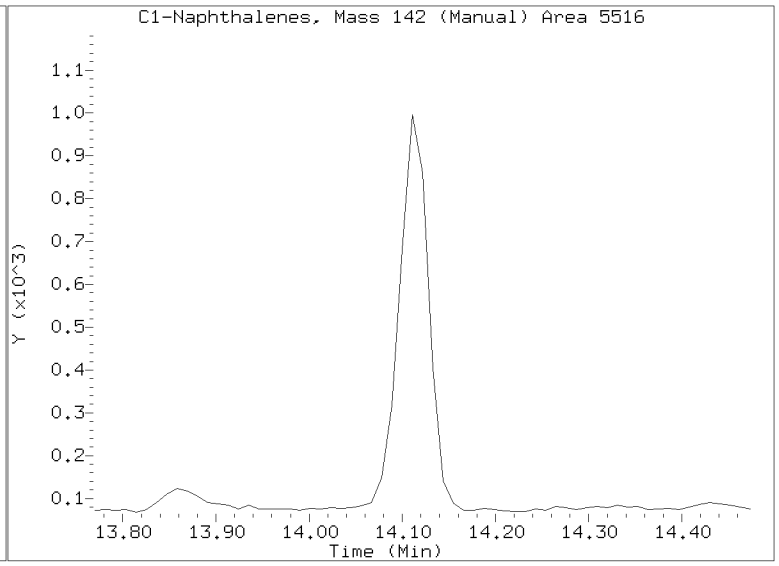
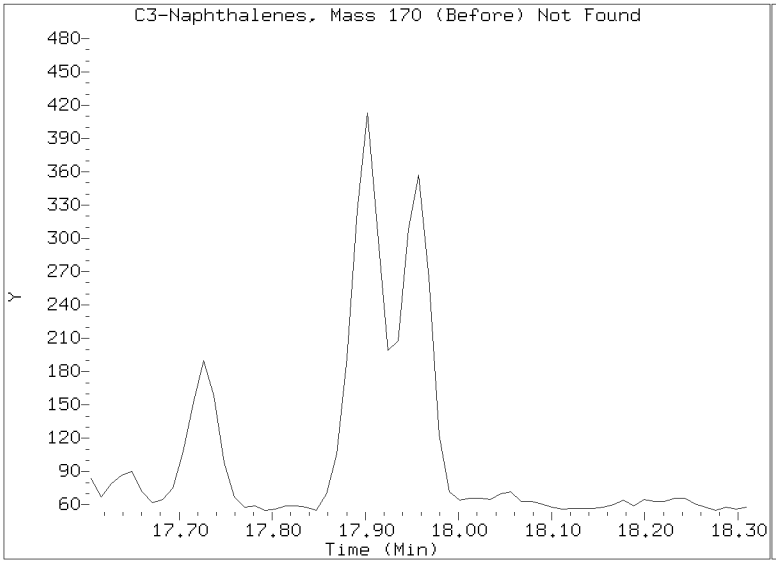
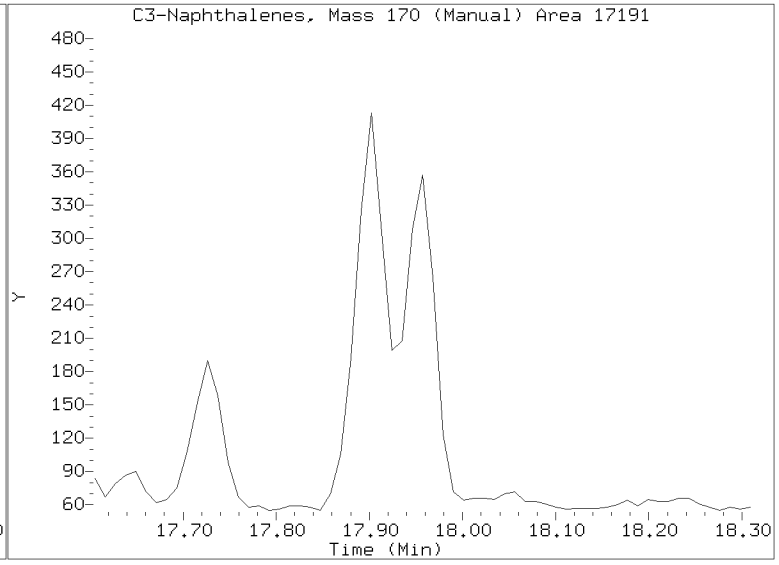
Report Date: 05/07/2021 11:16









SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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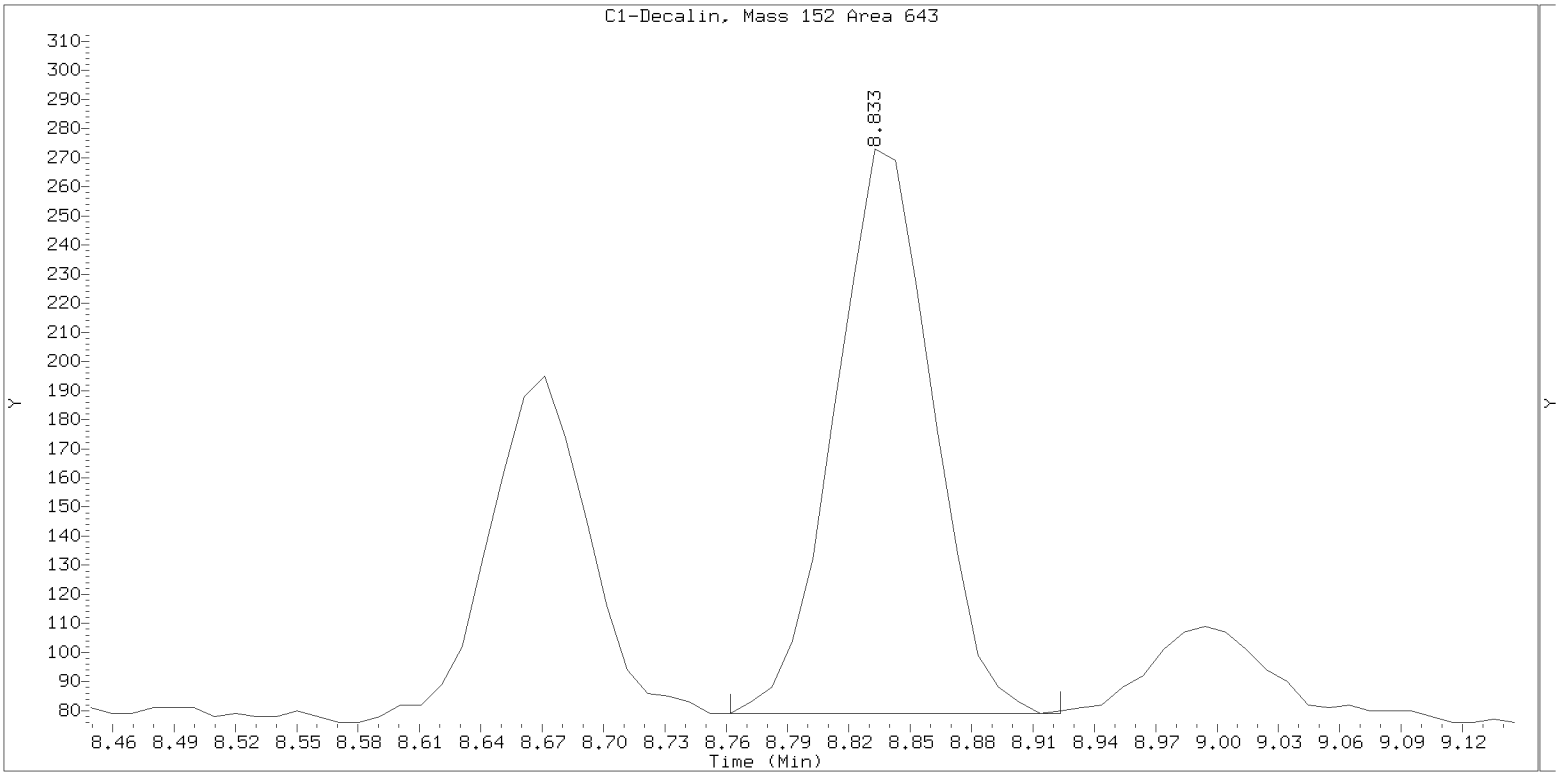

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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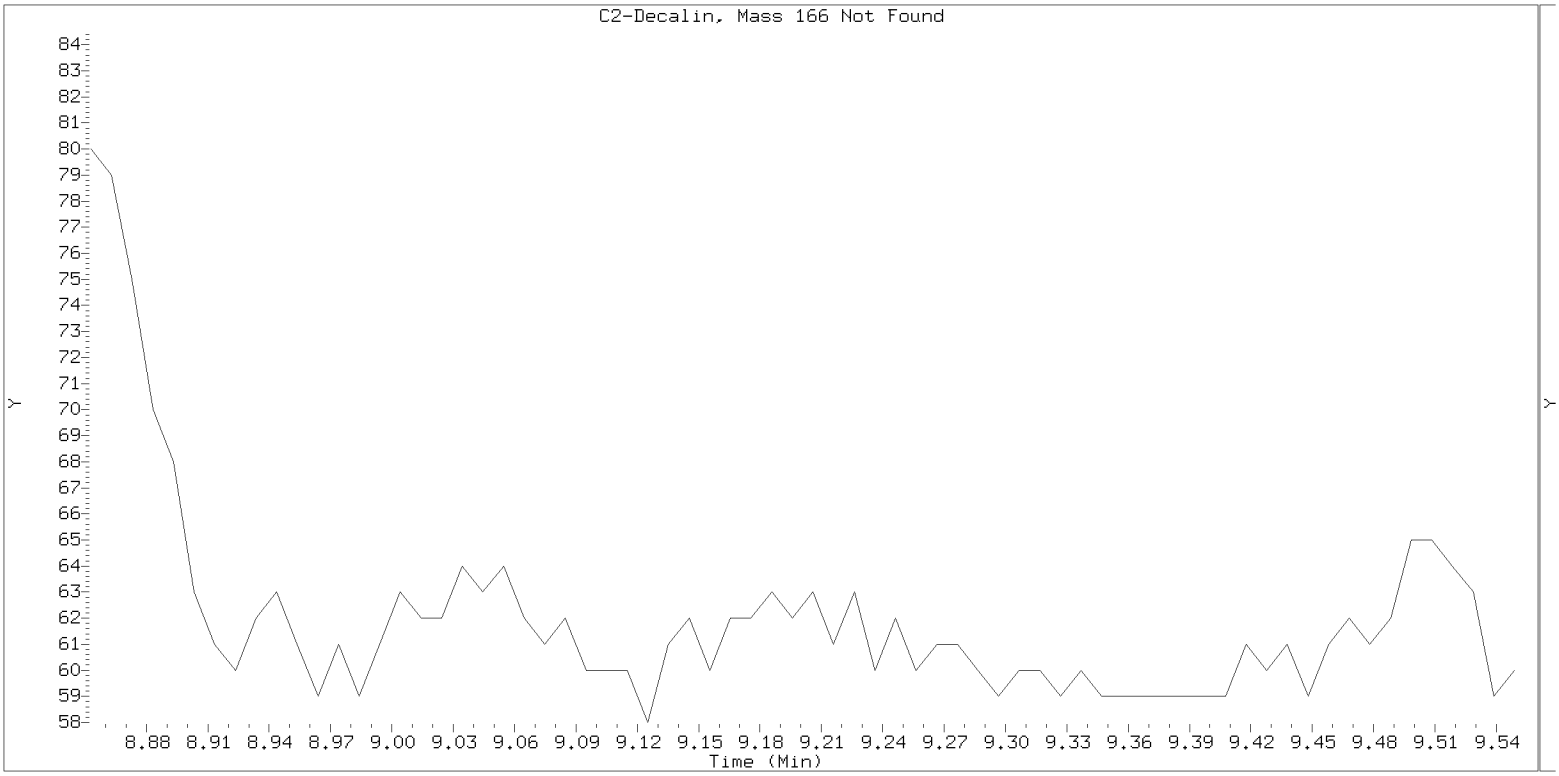

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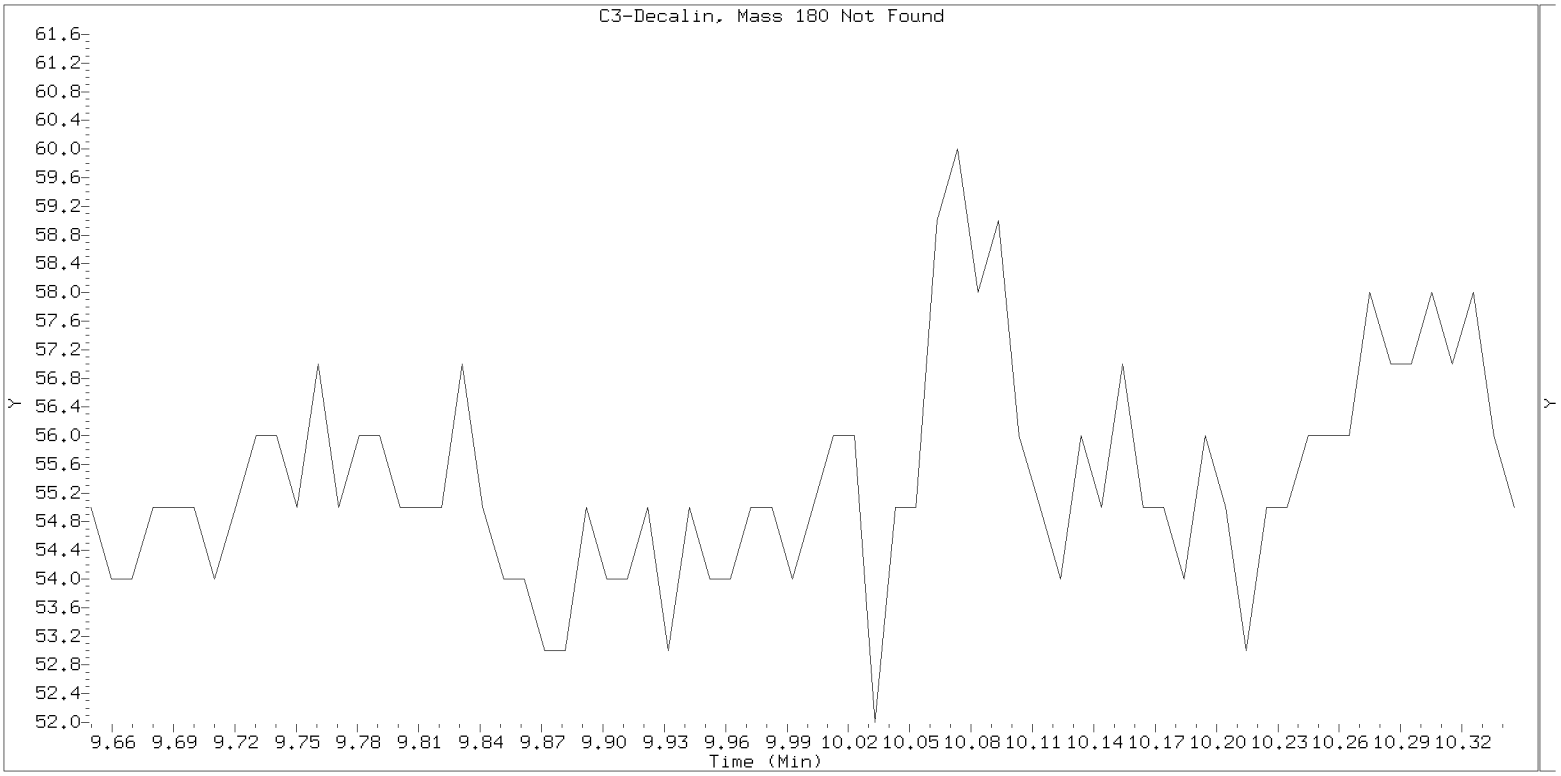

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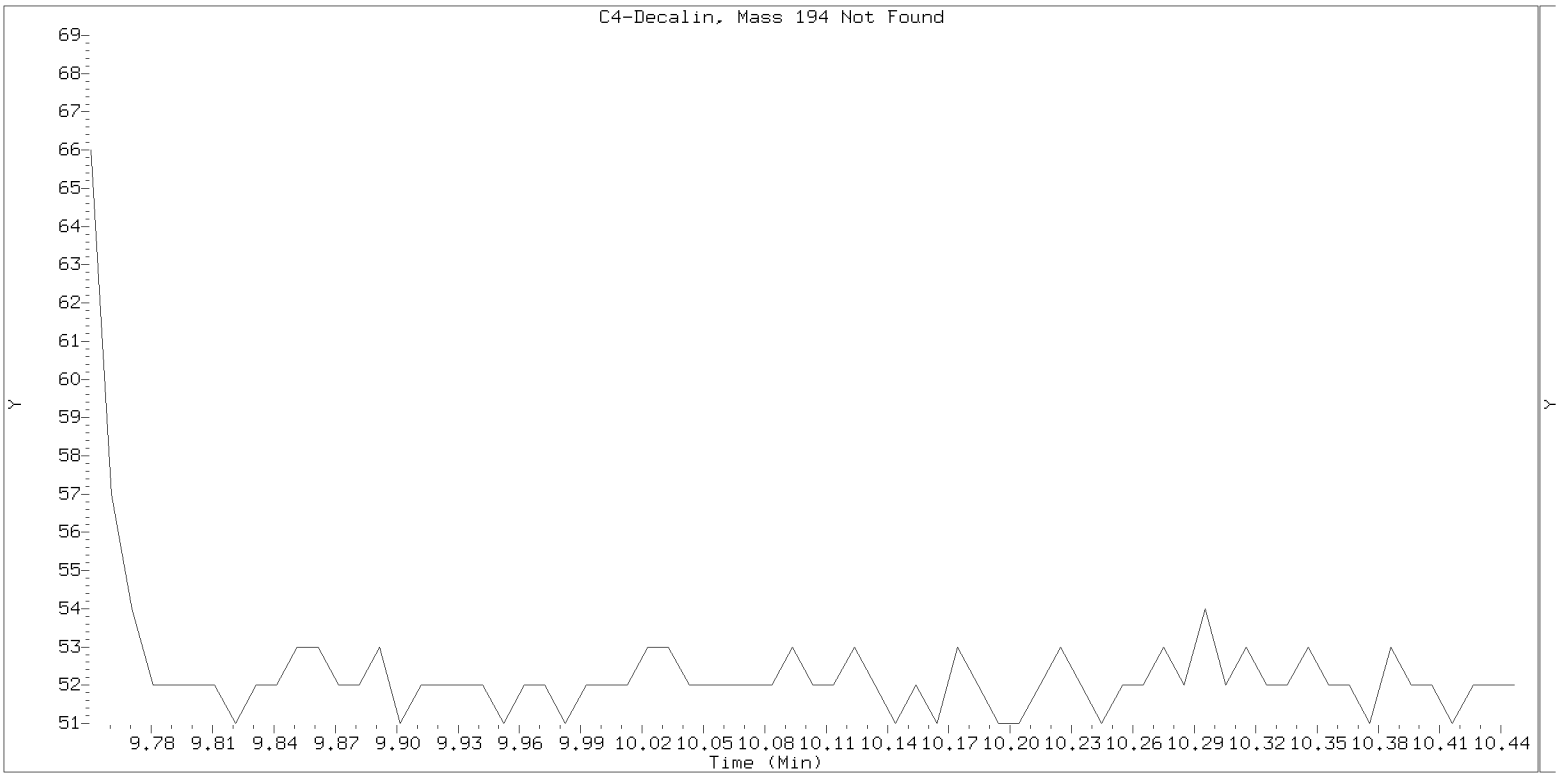

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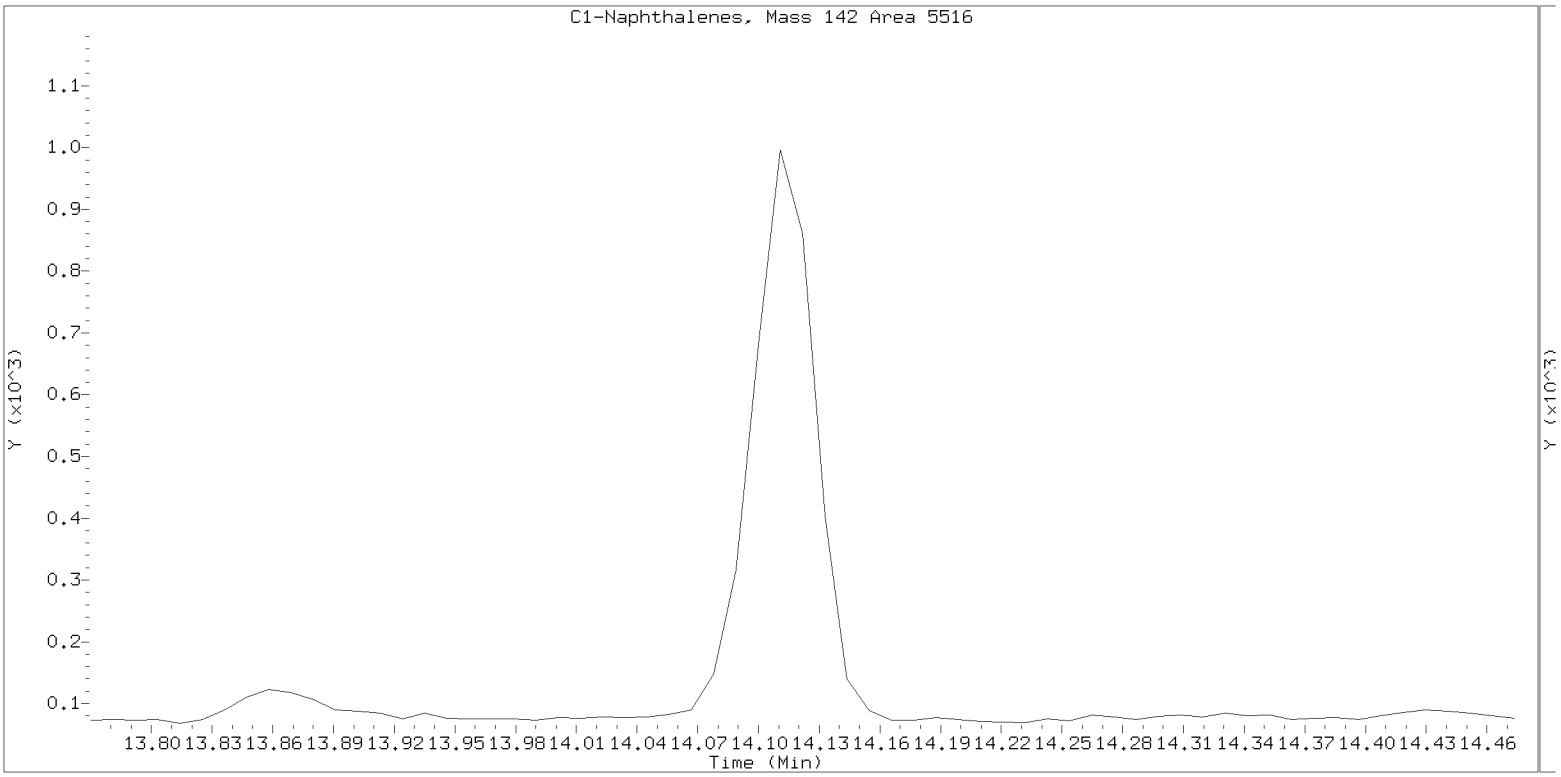

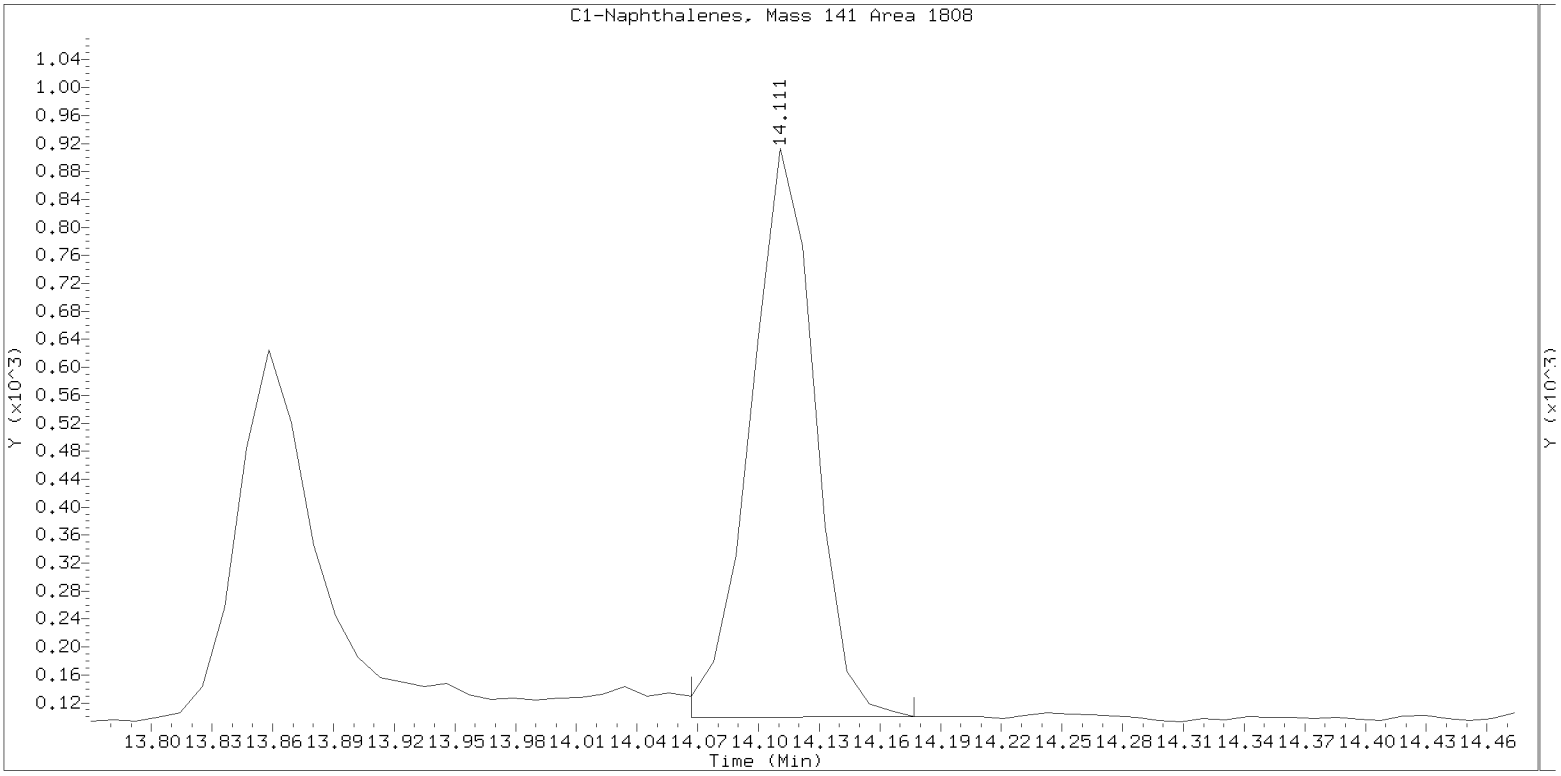

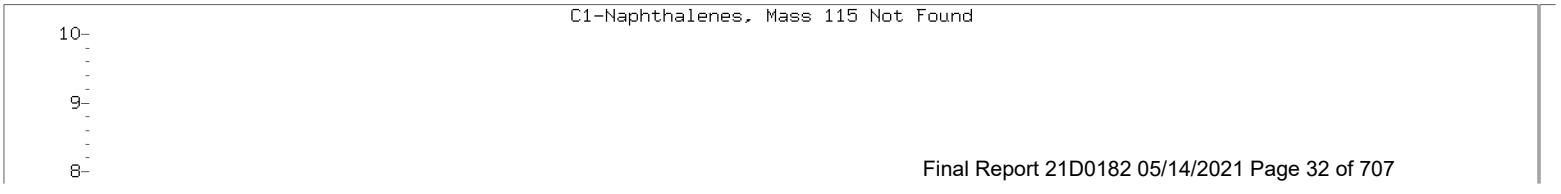

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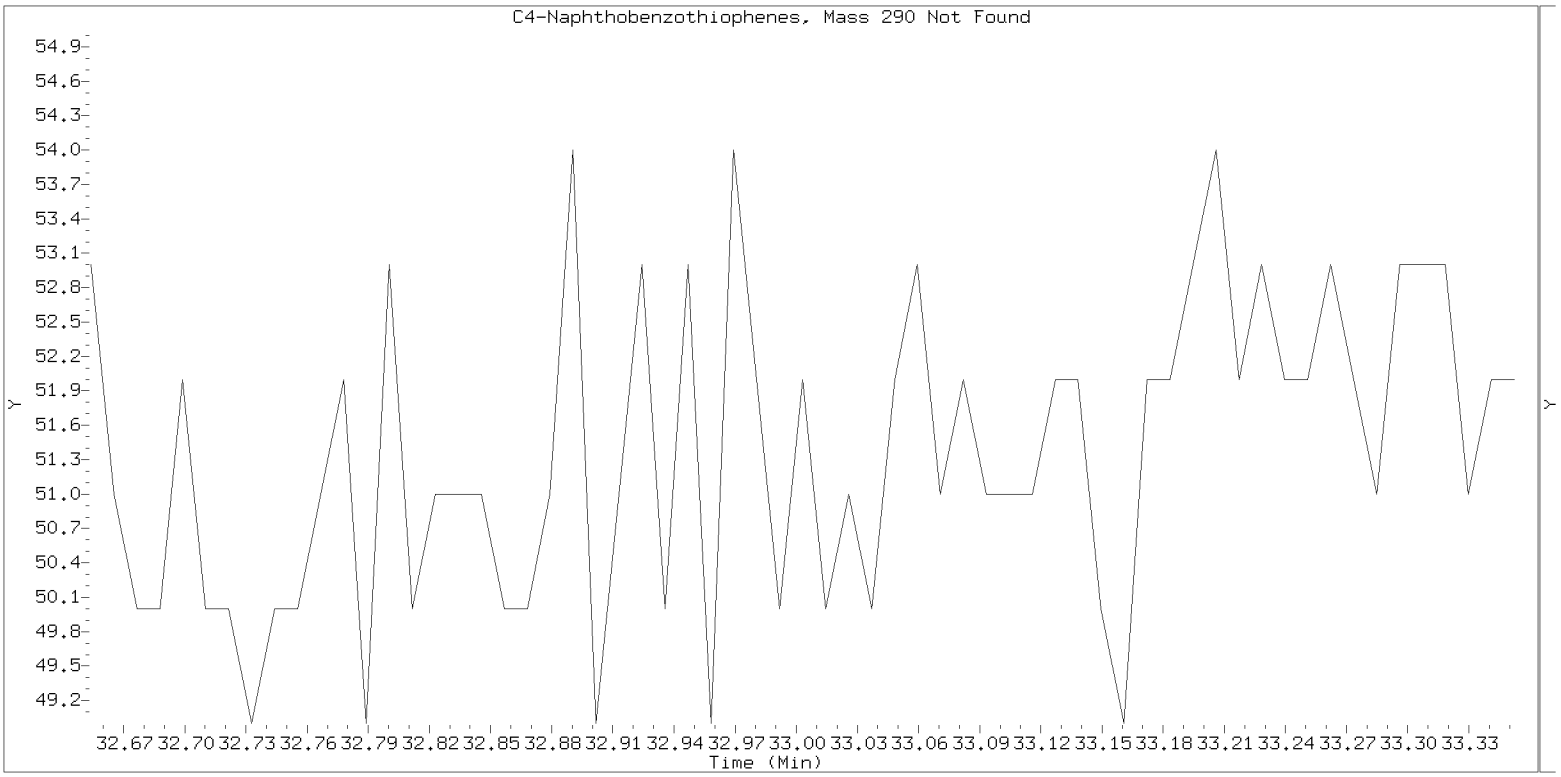

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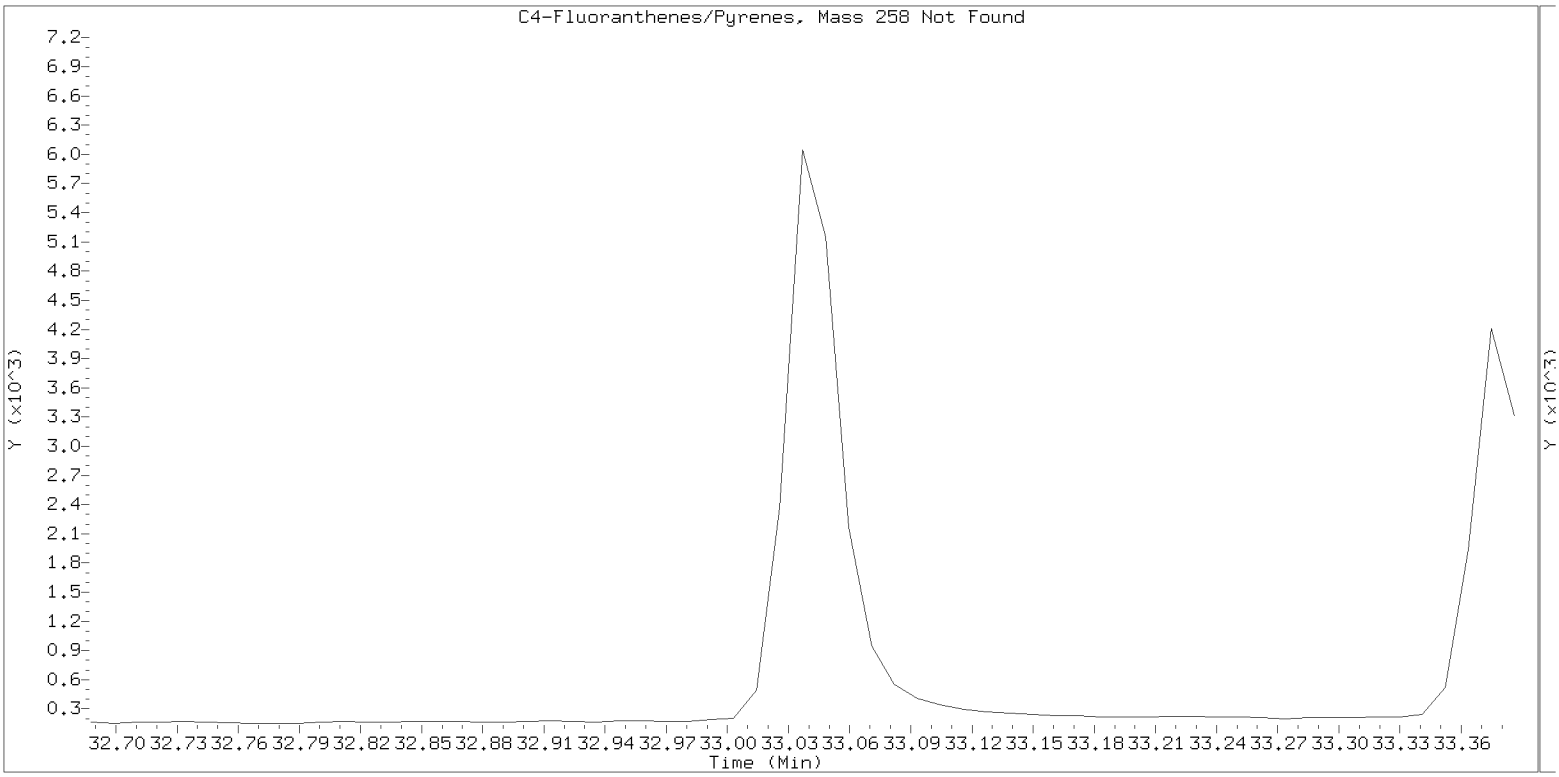

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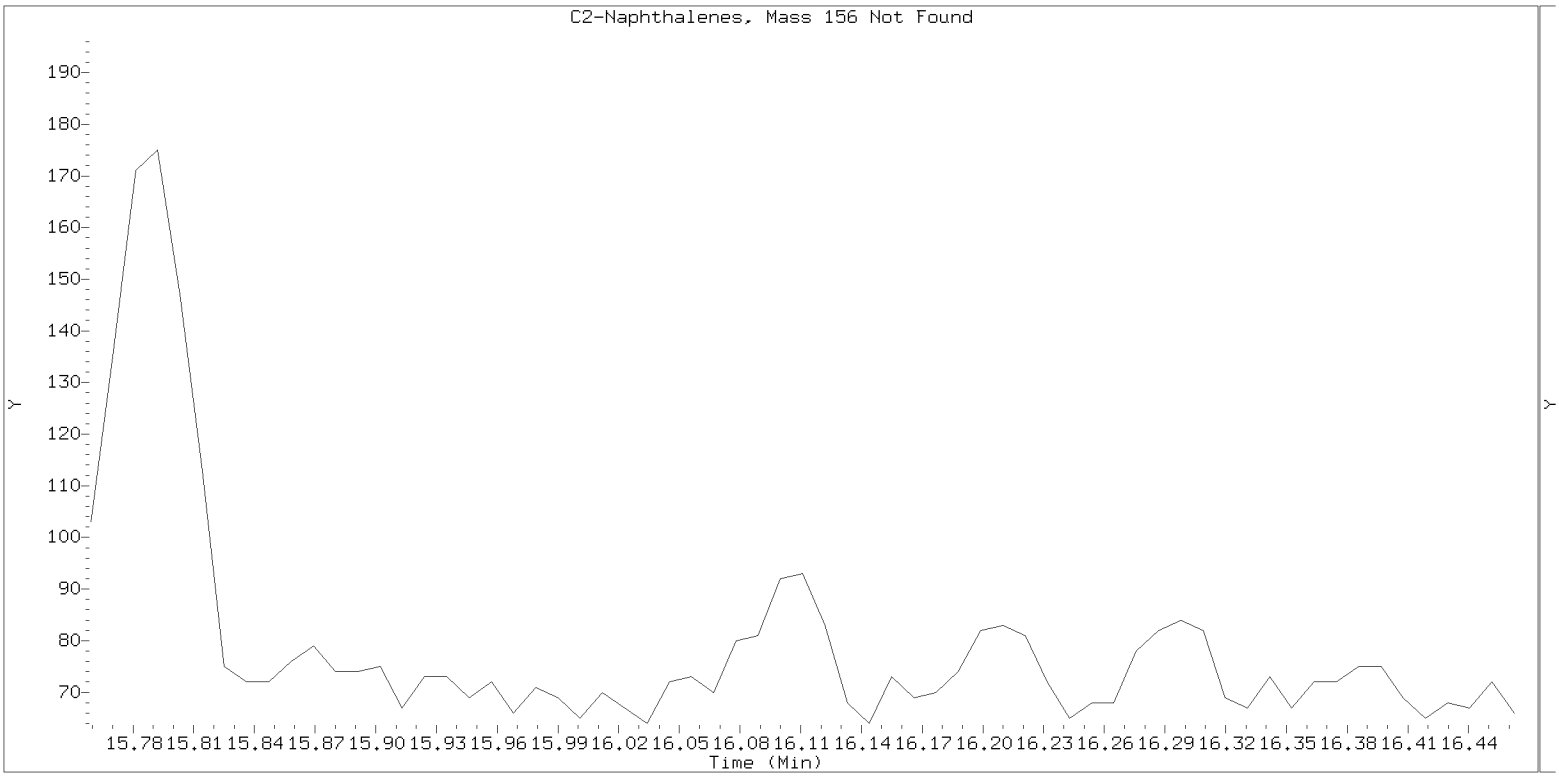

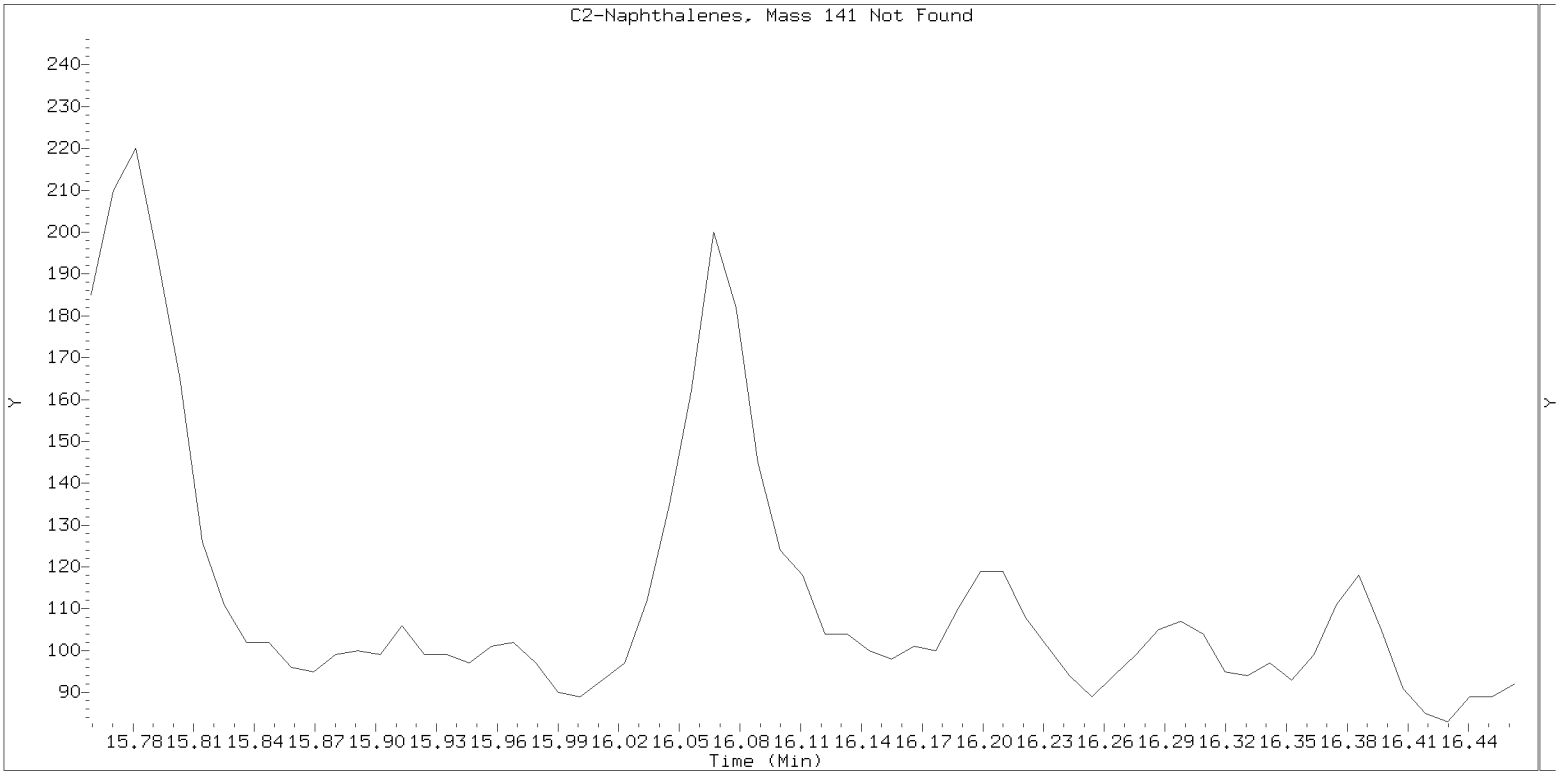

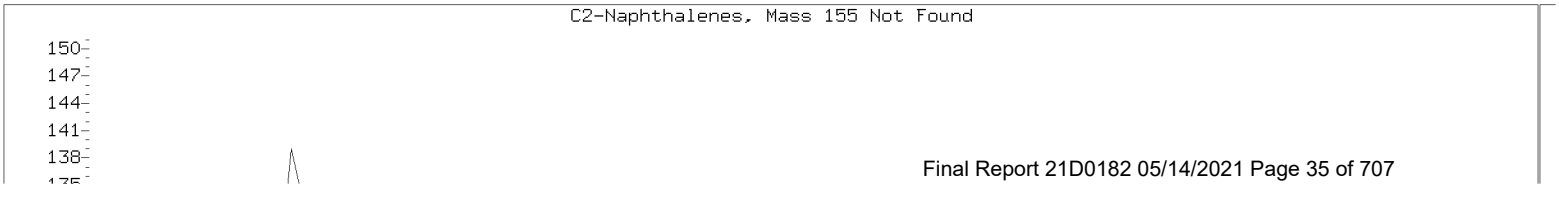

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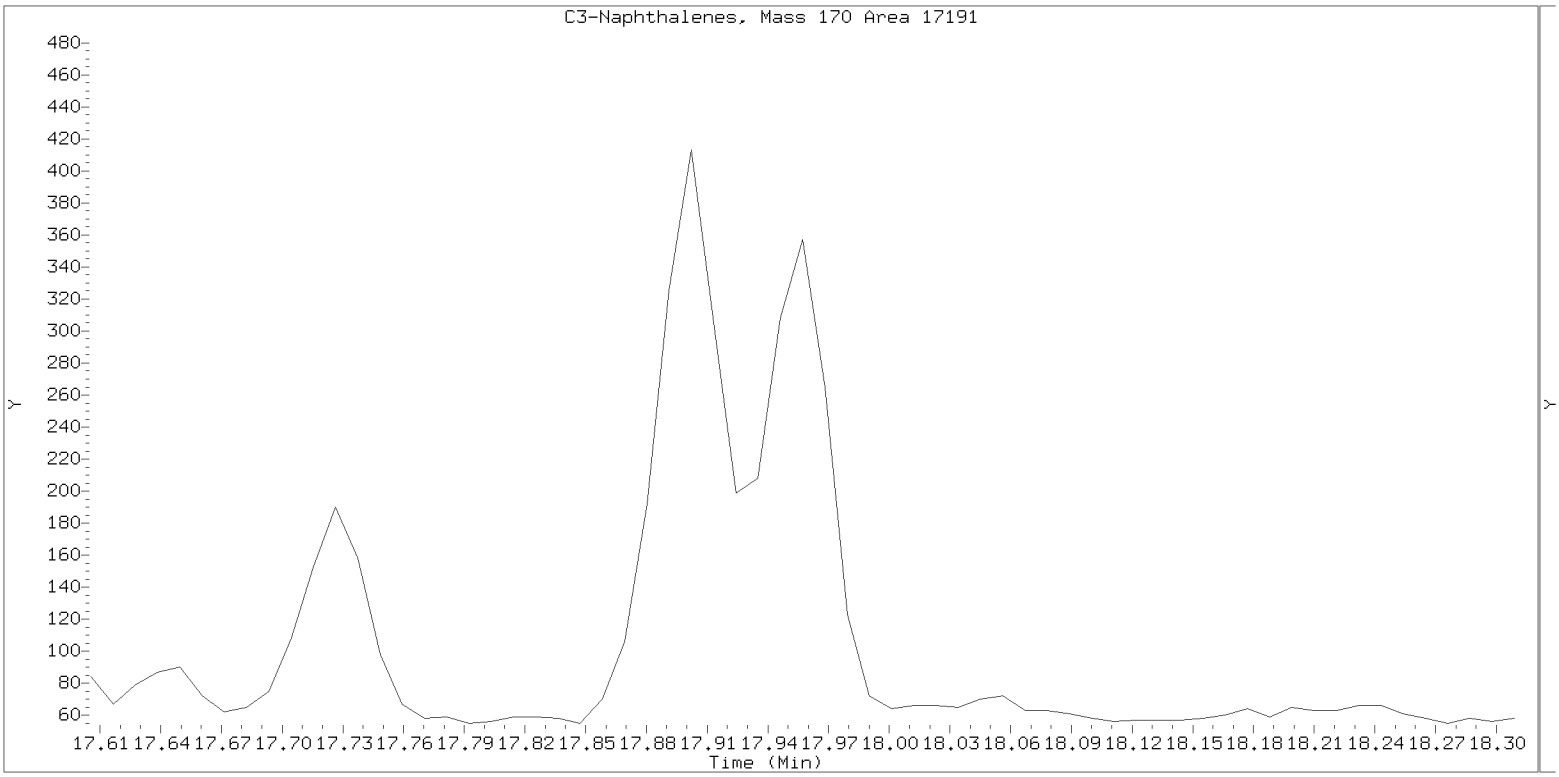

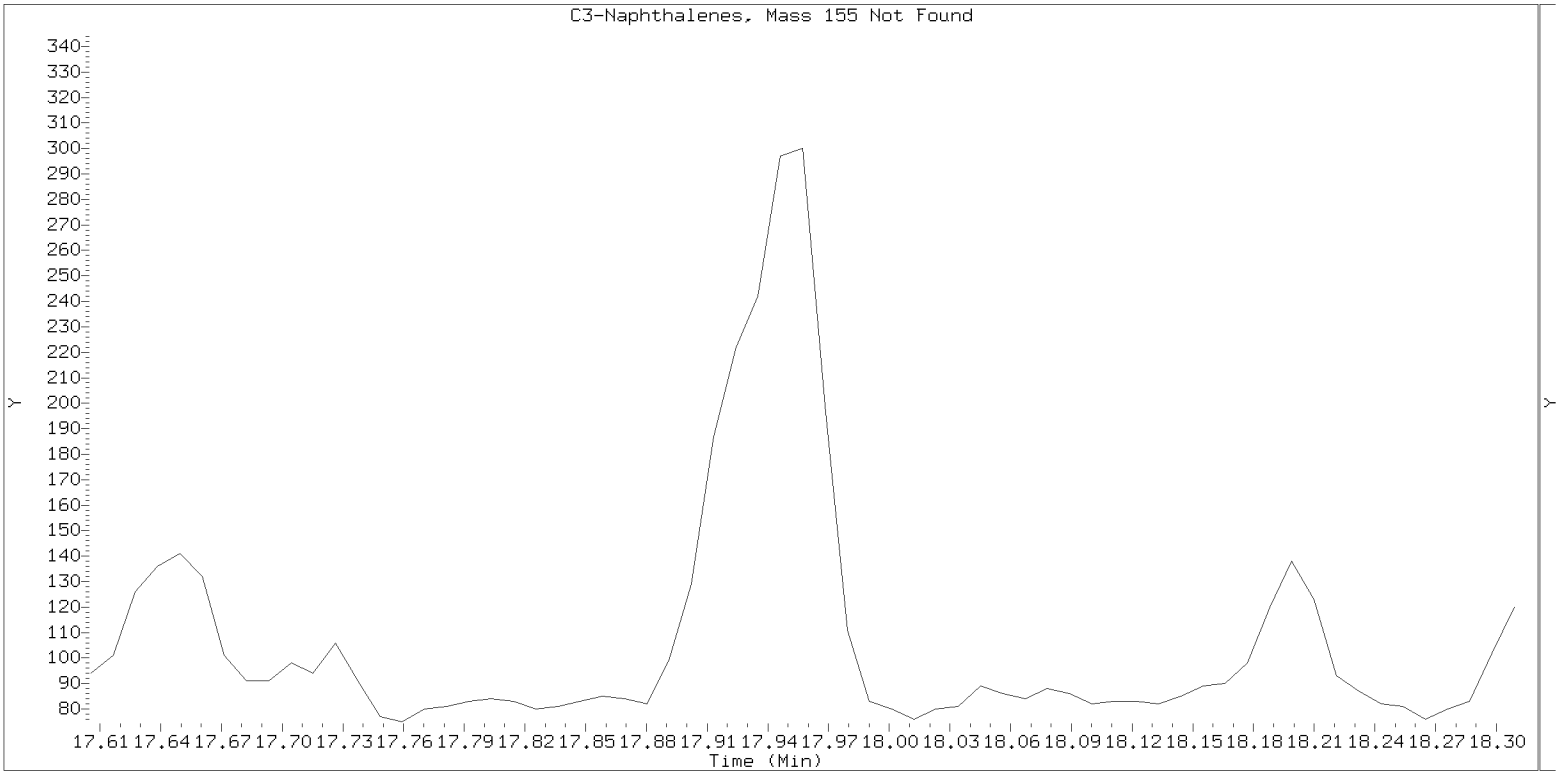

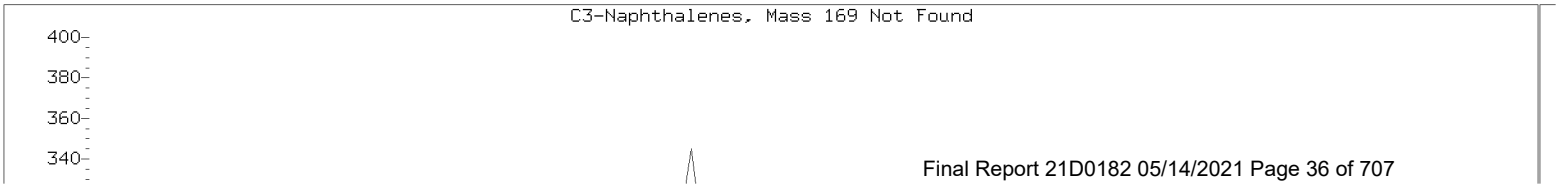

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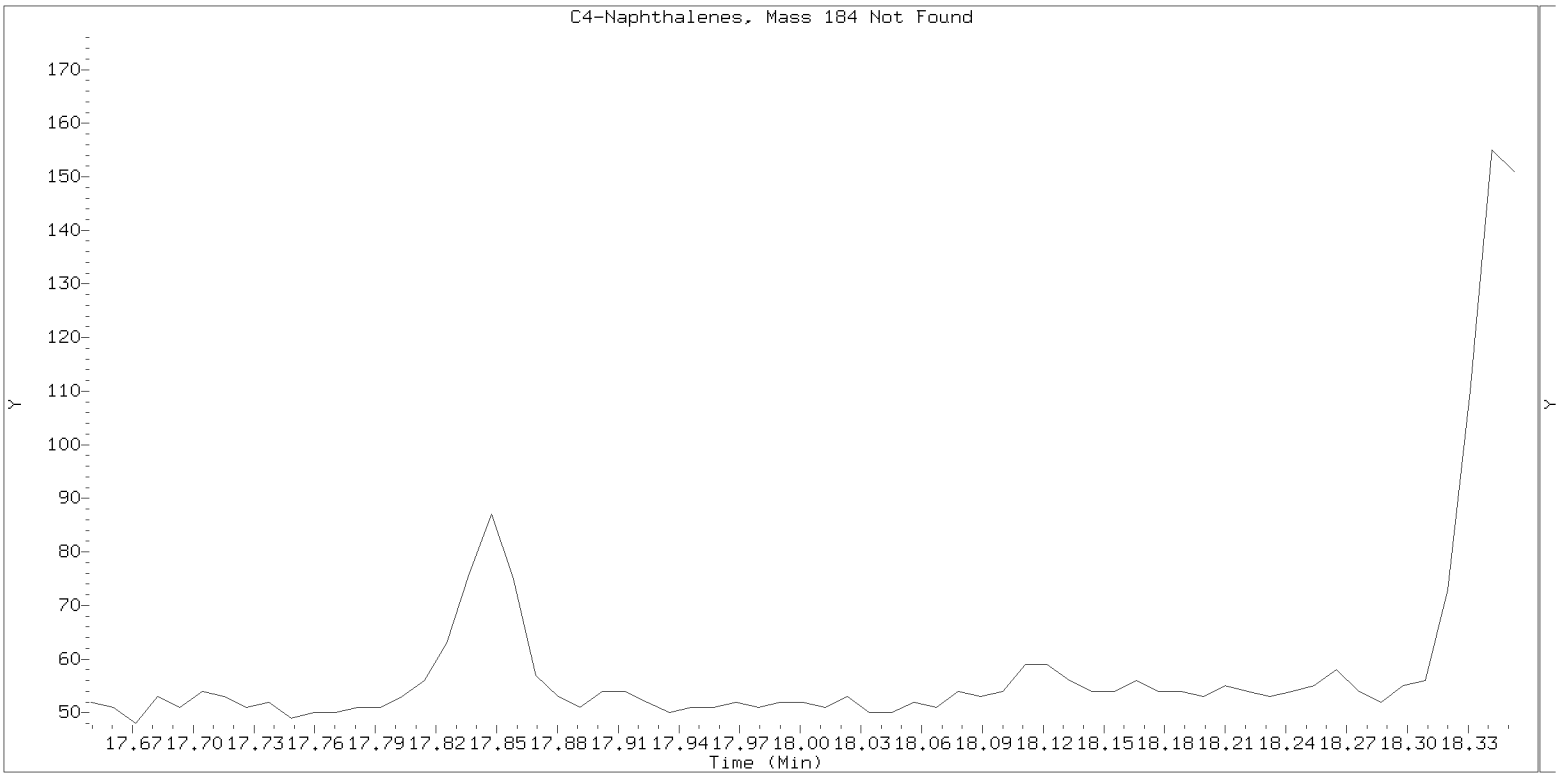

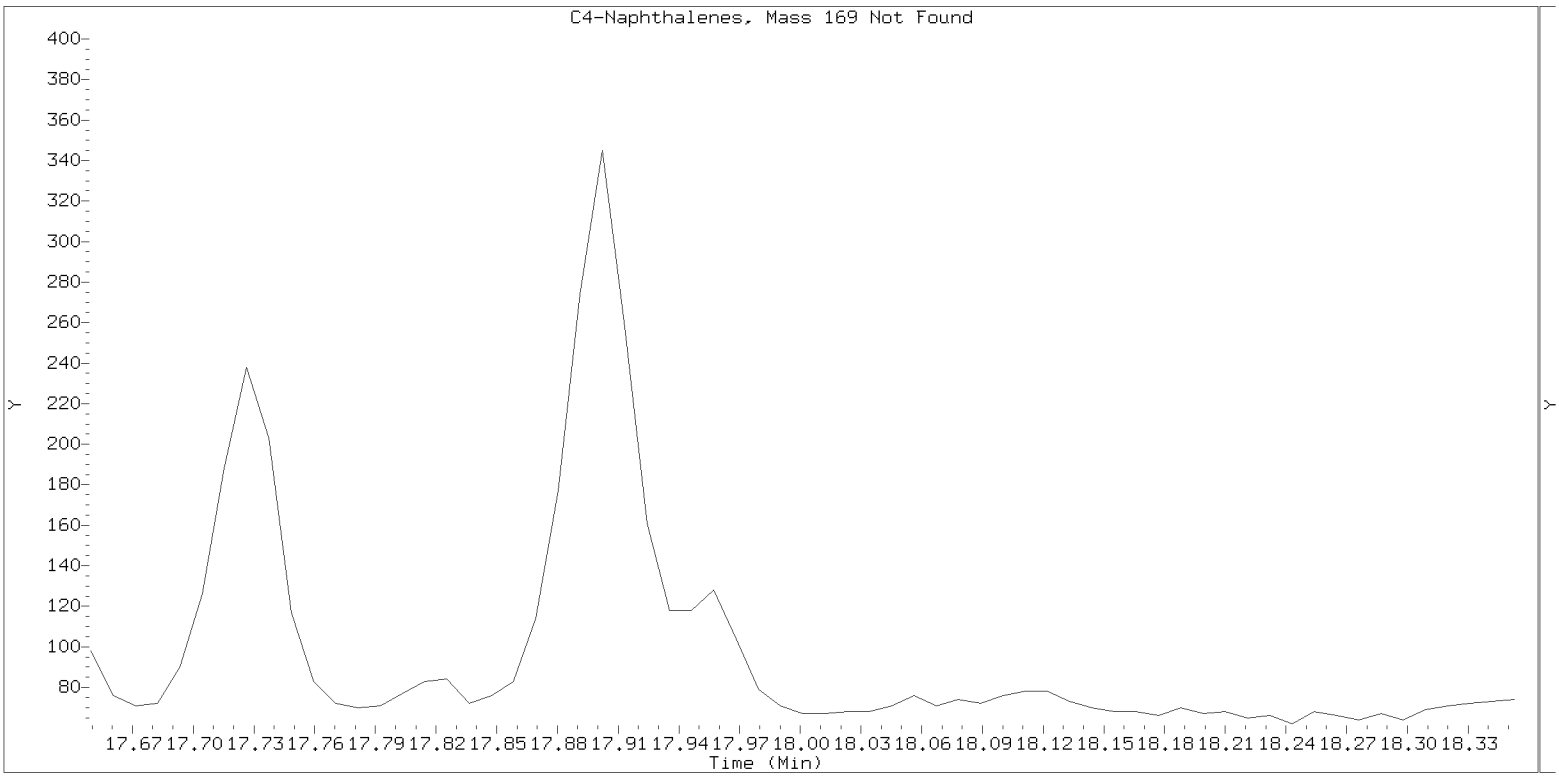

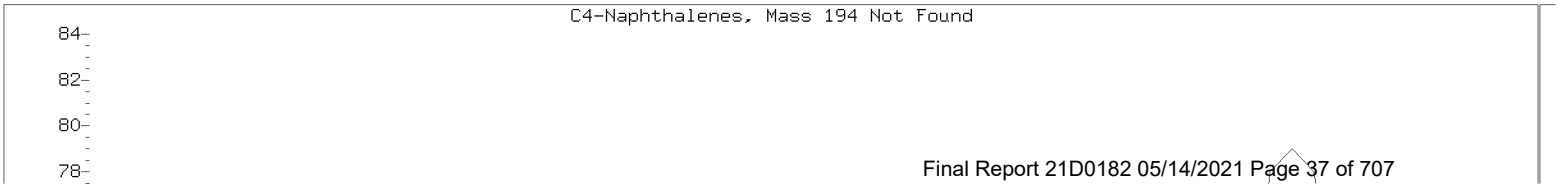

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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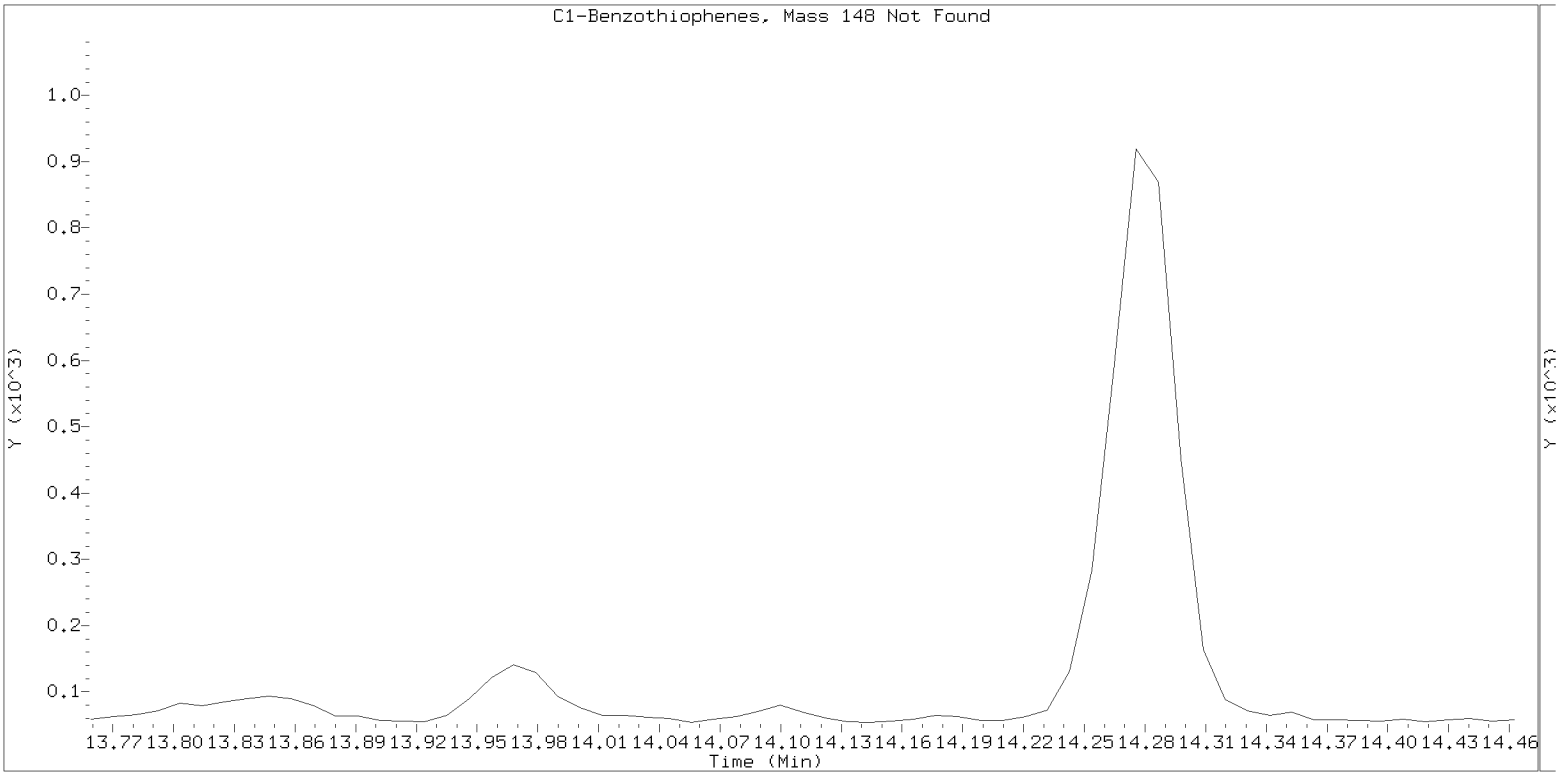

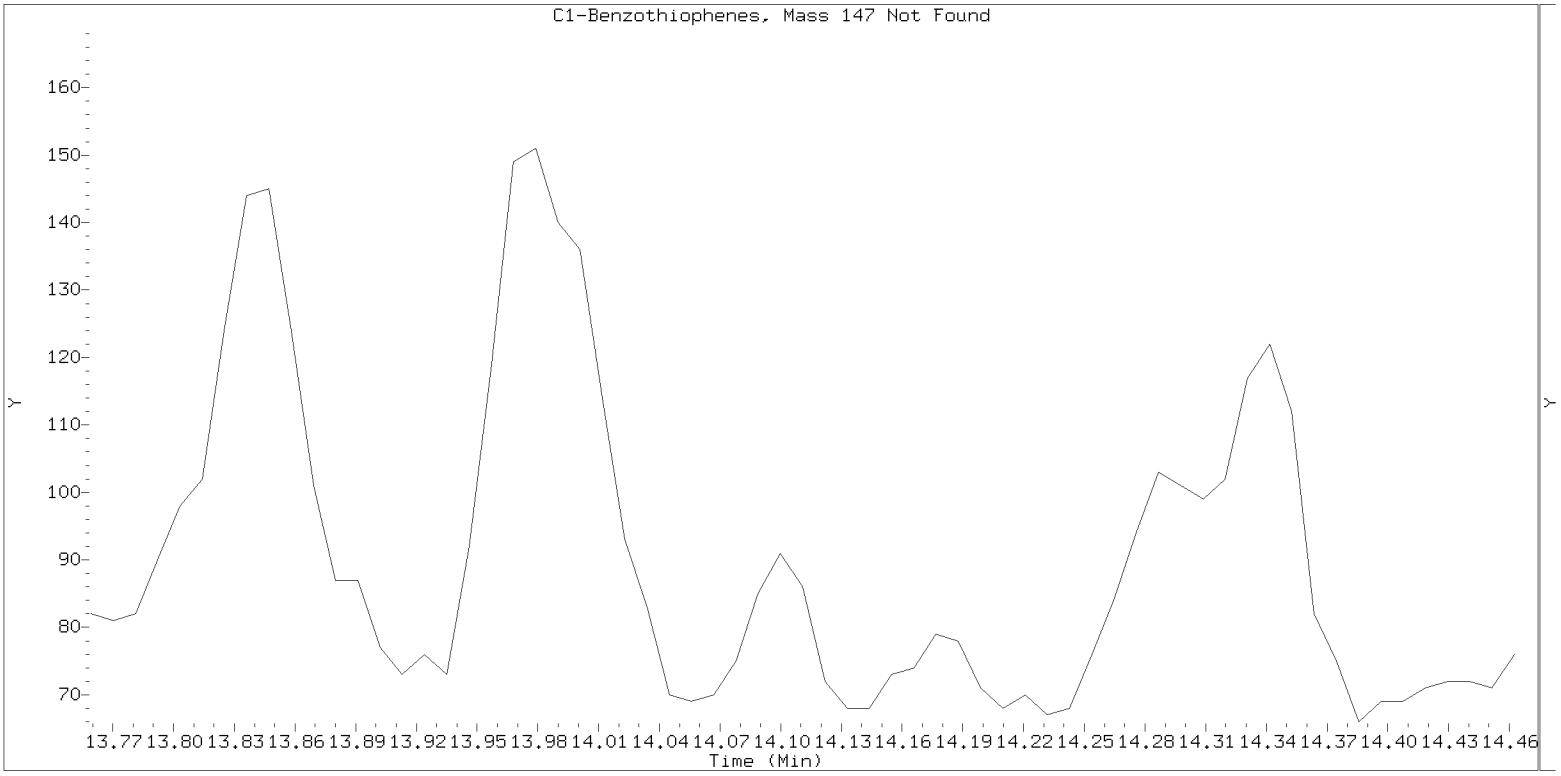

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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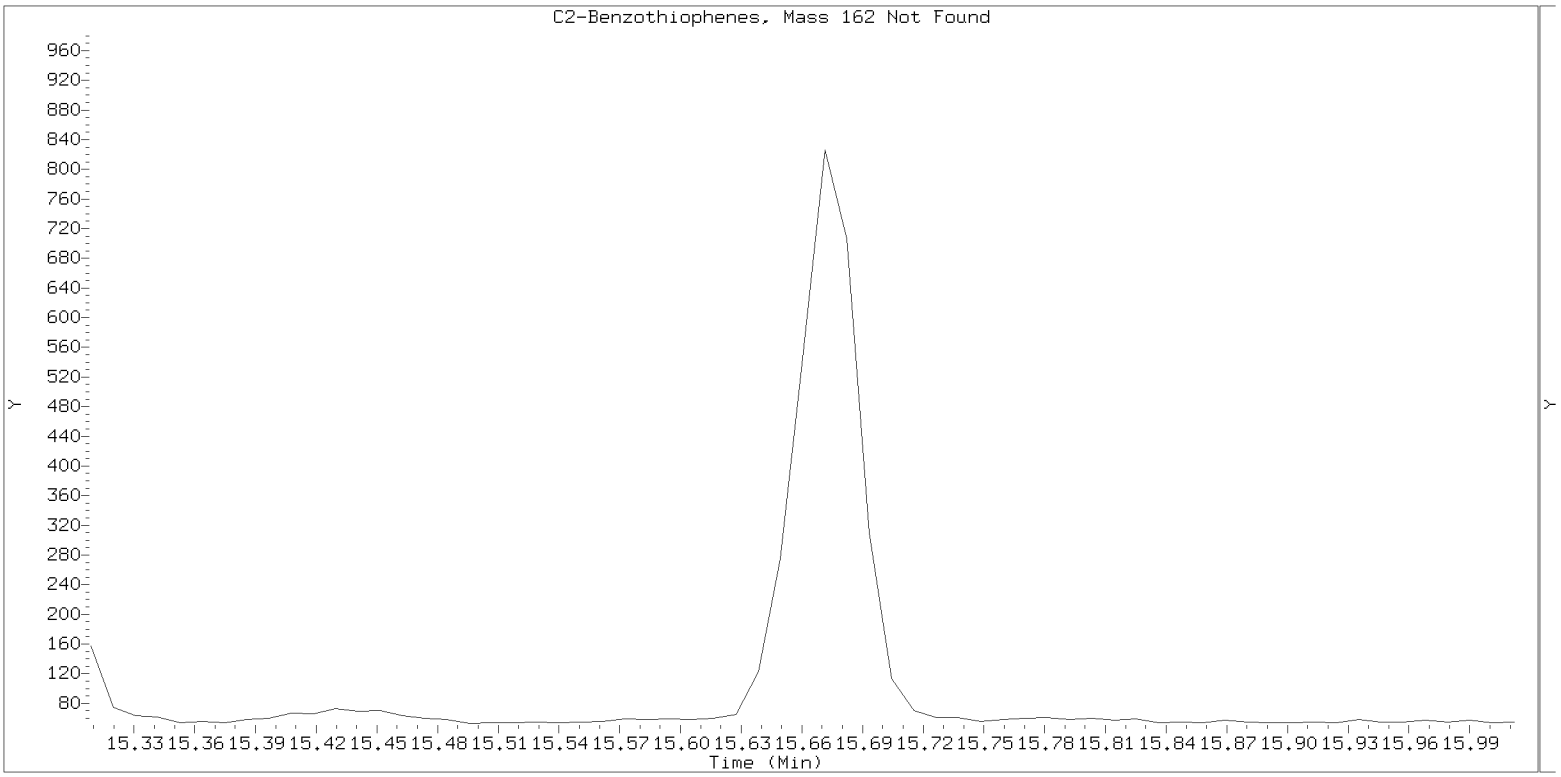

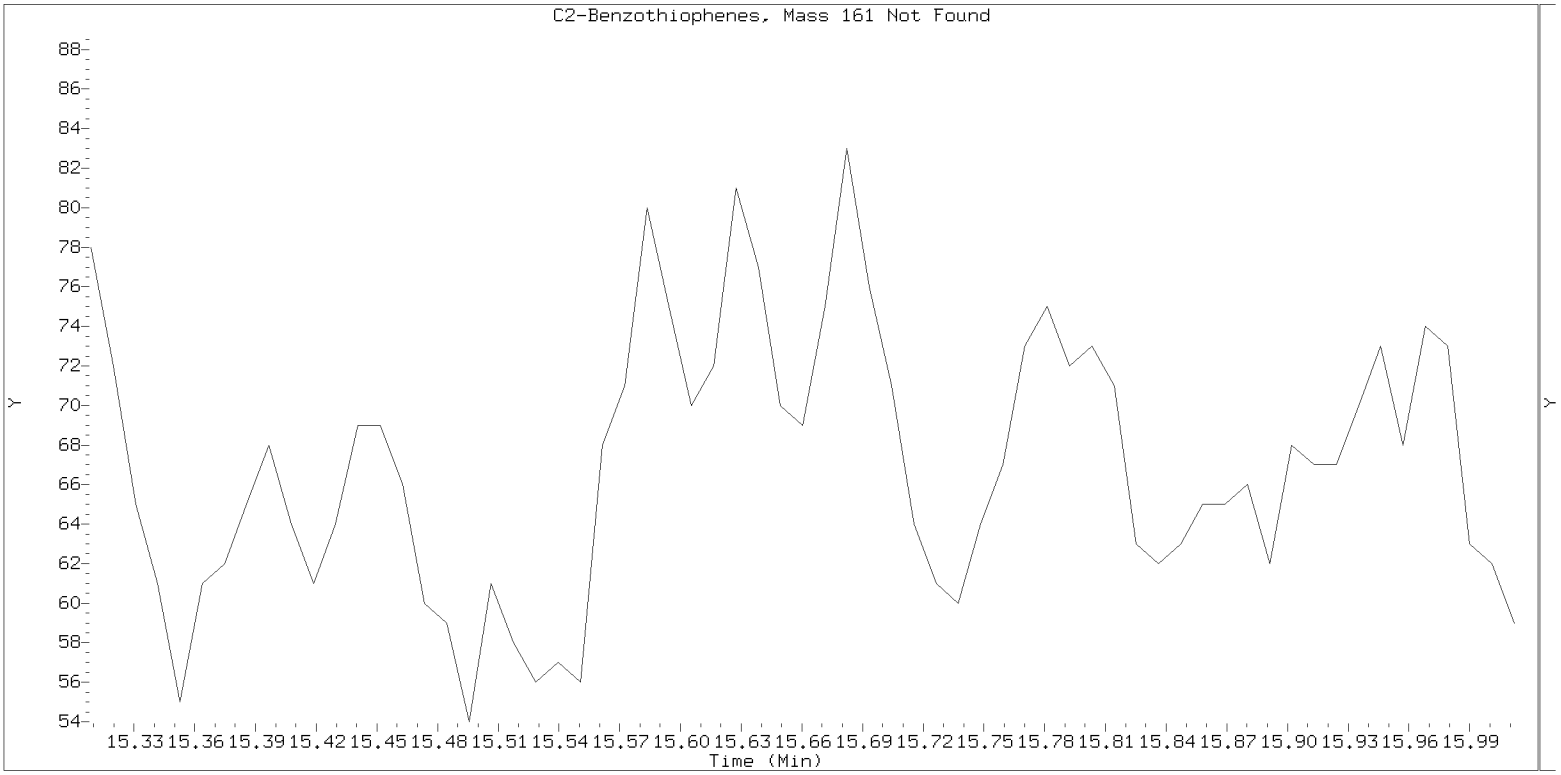

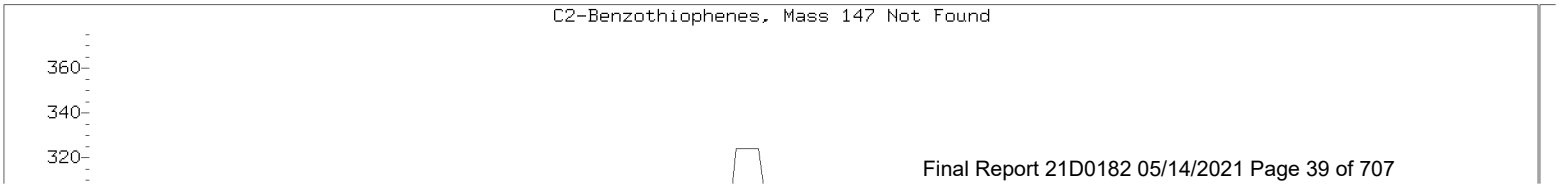

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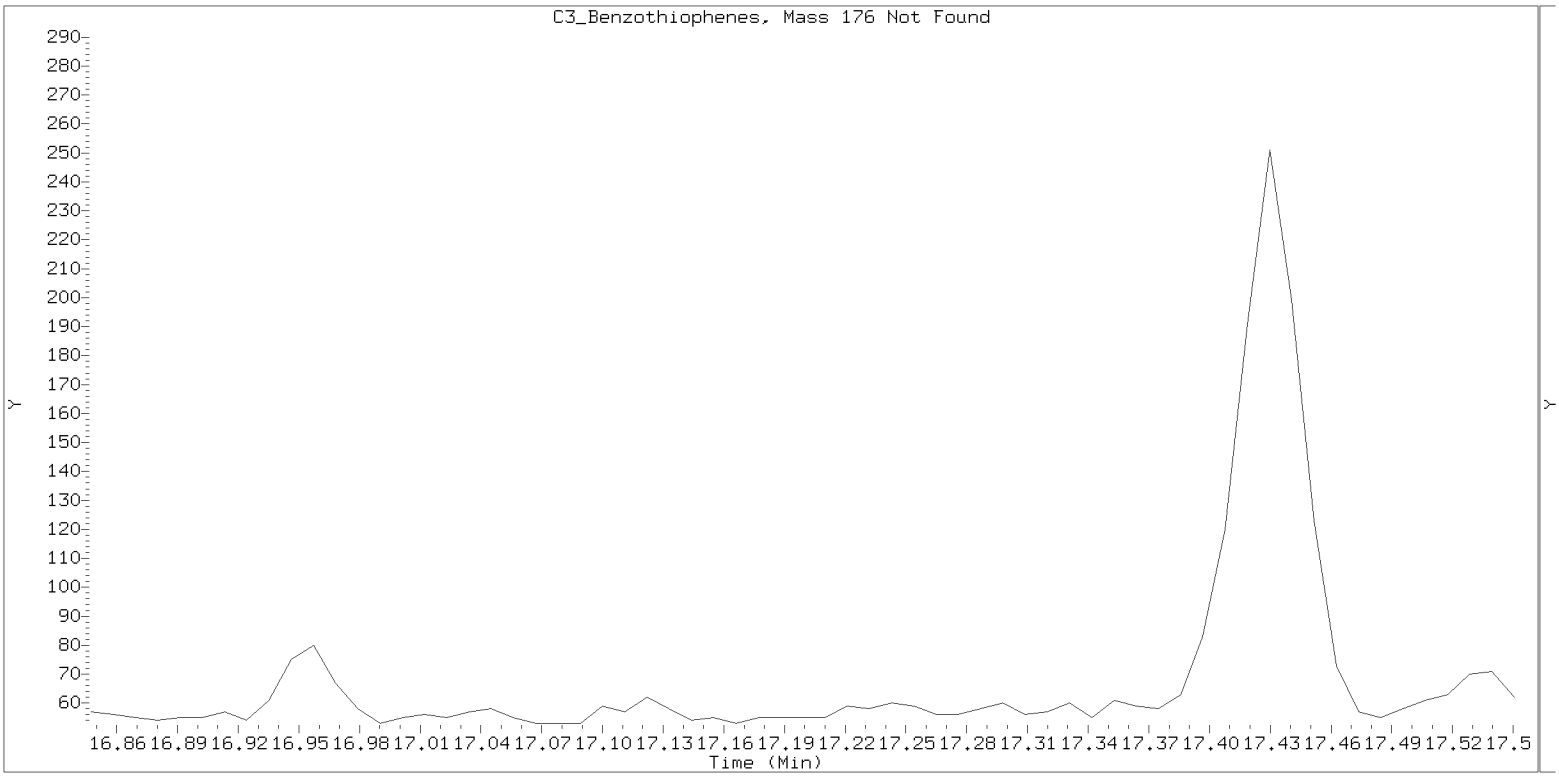

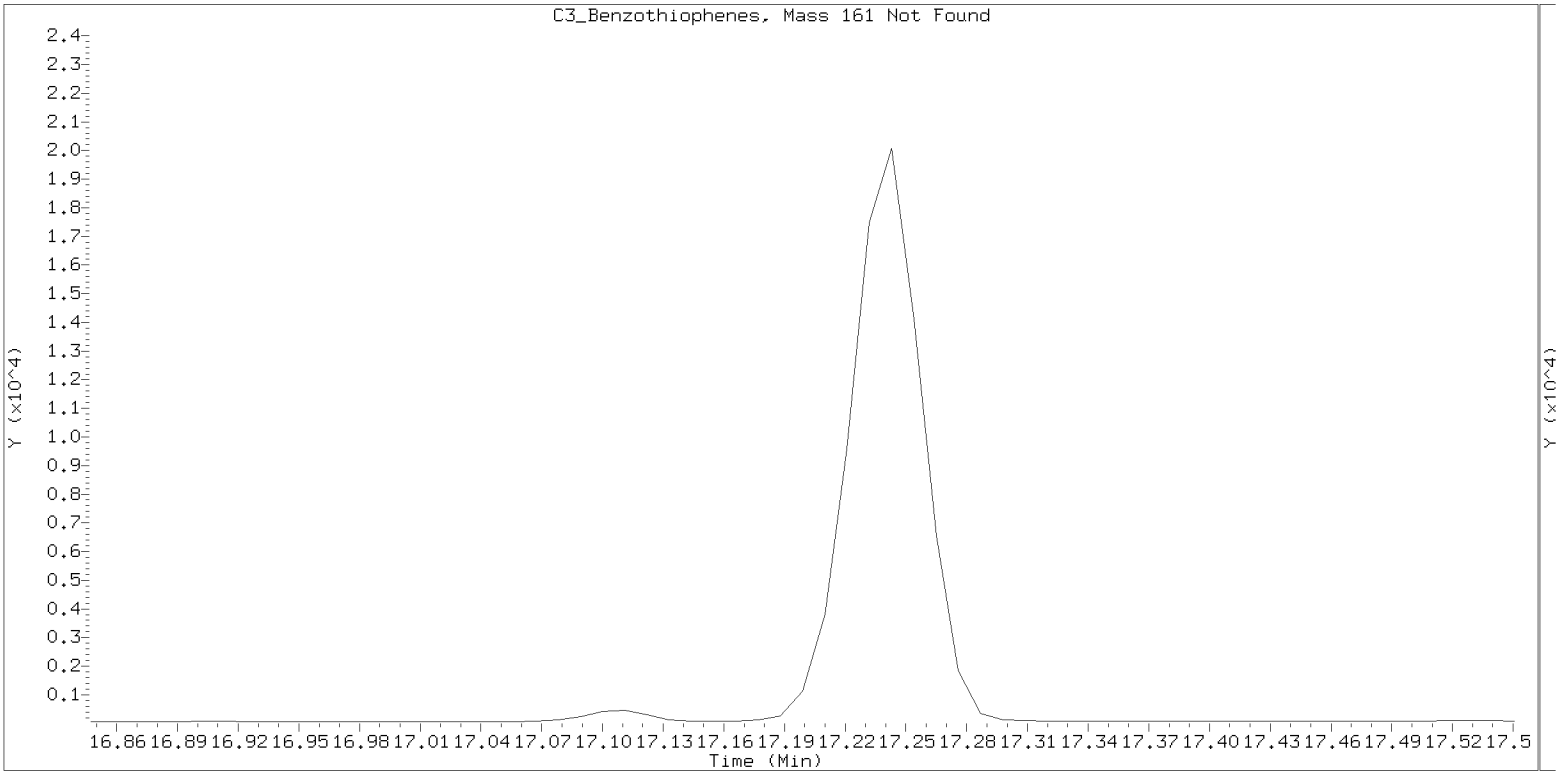

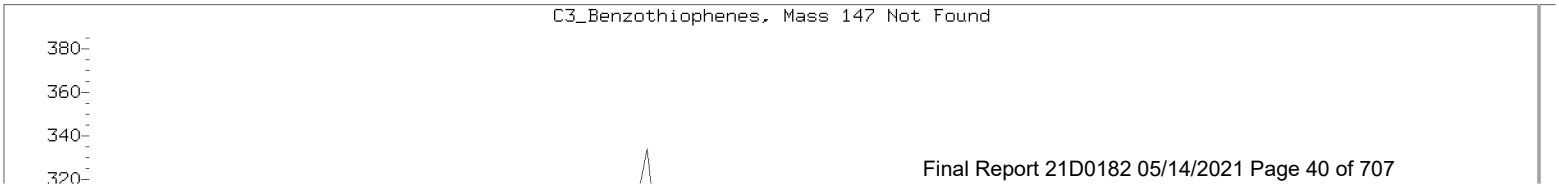

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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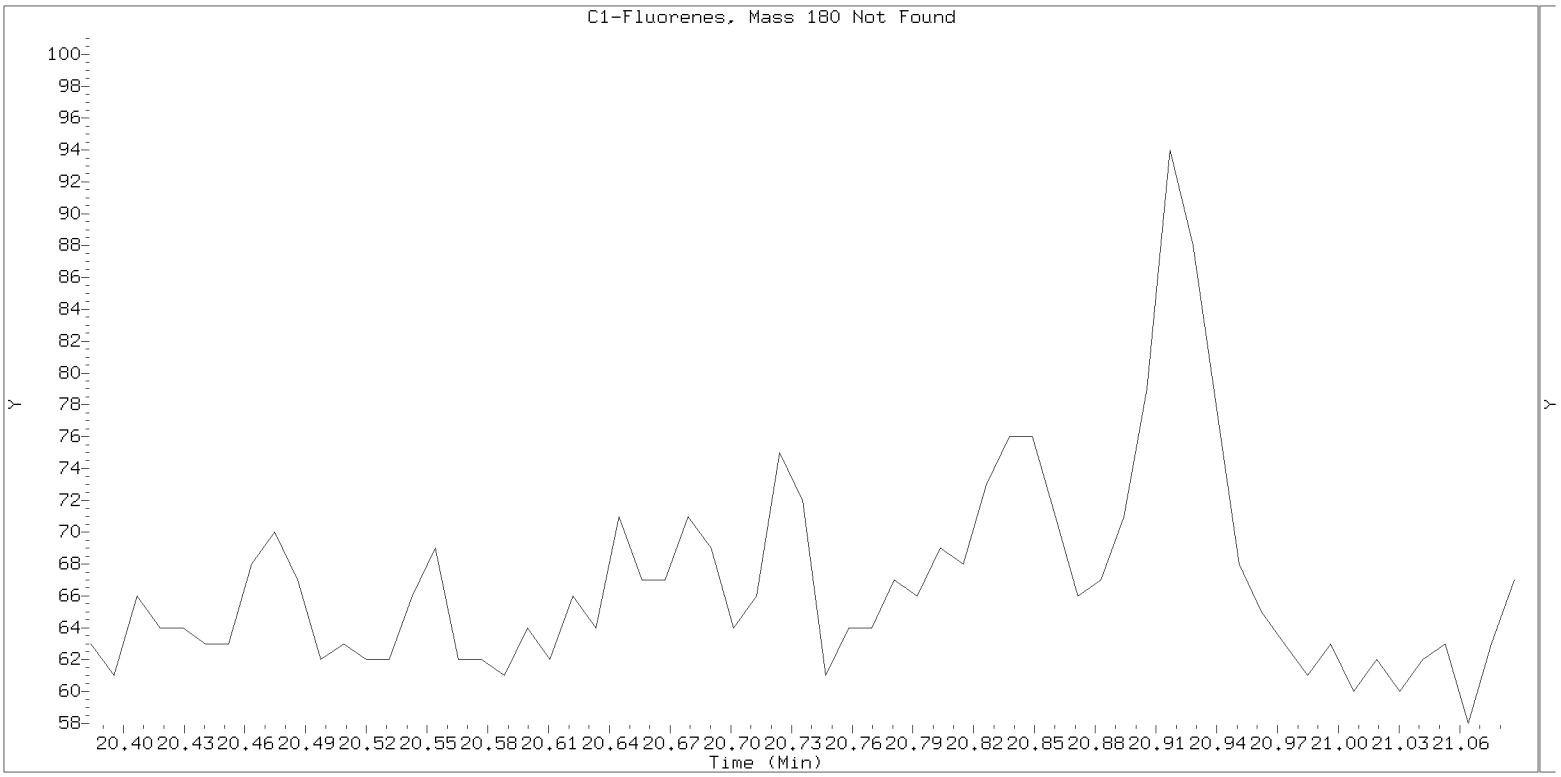

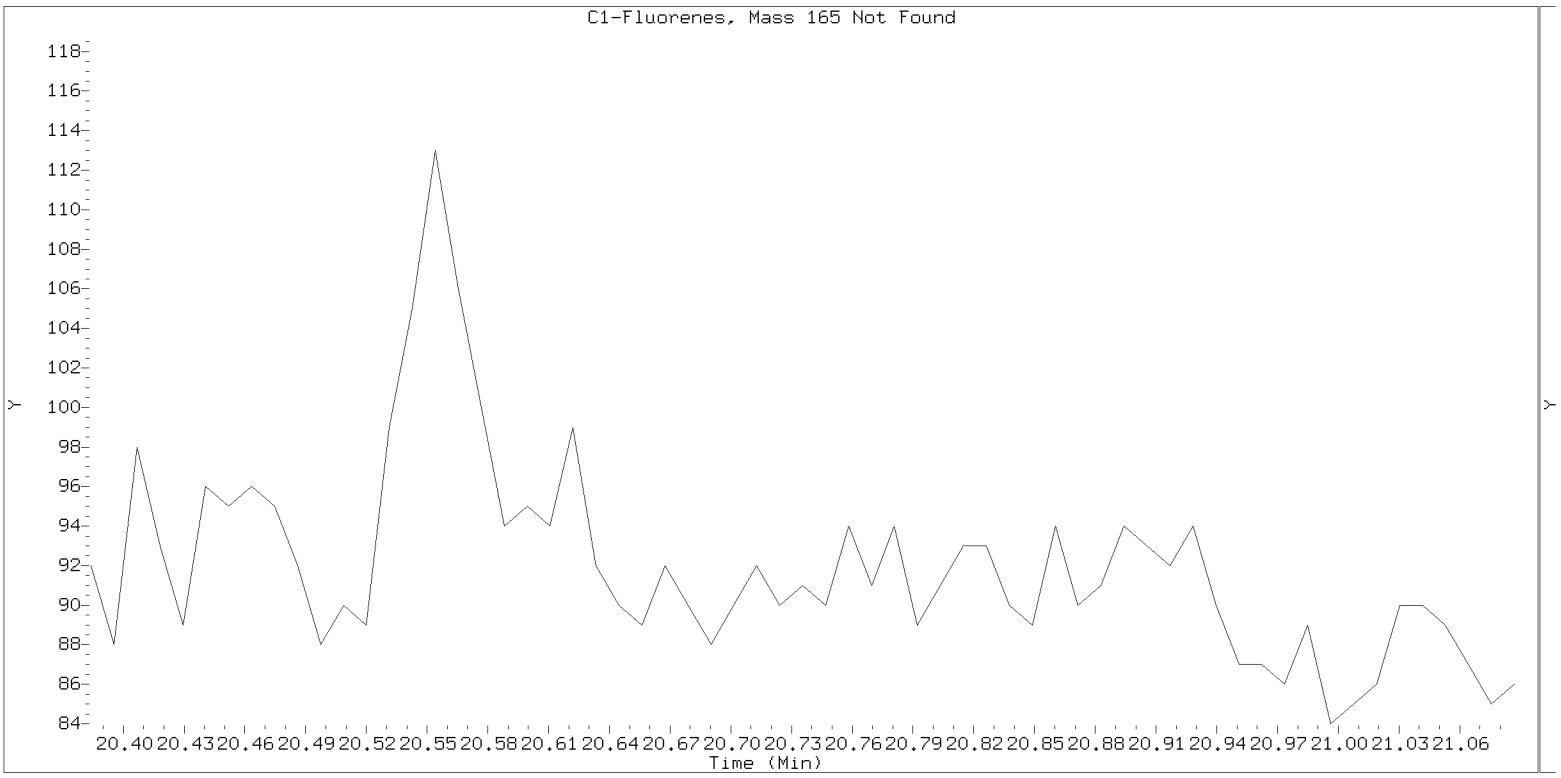

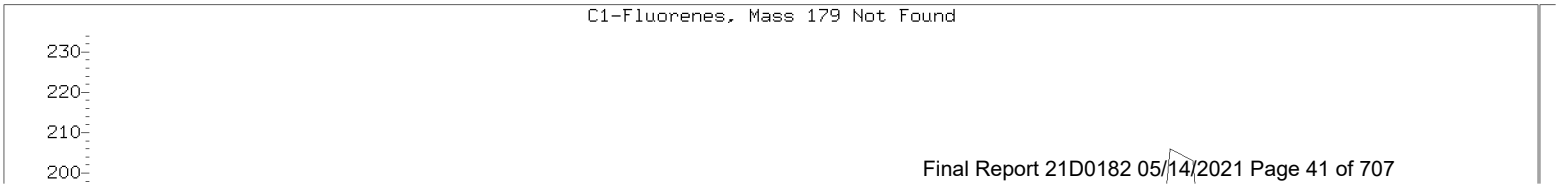

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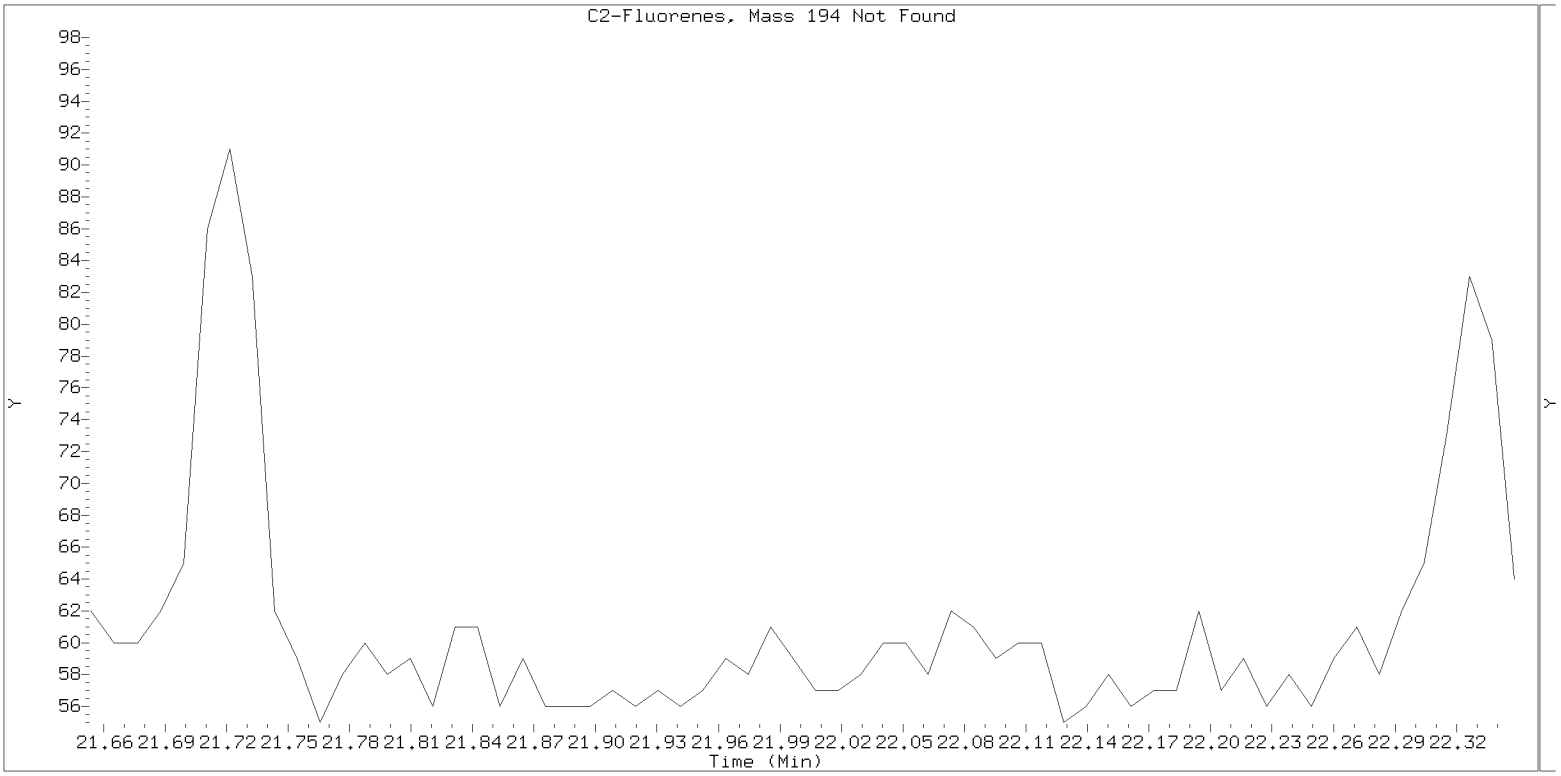

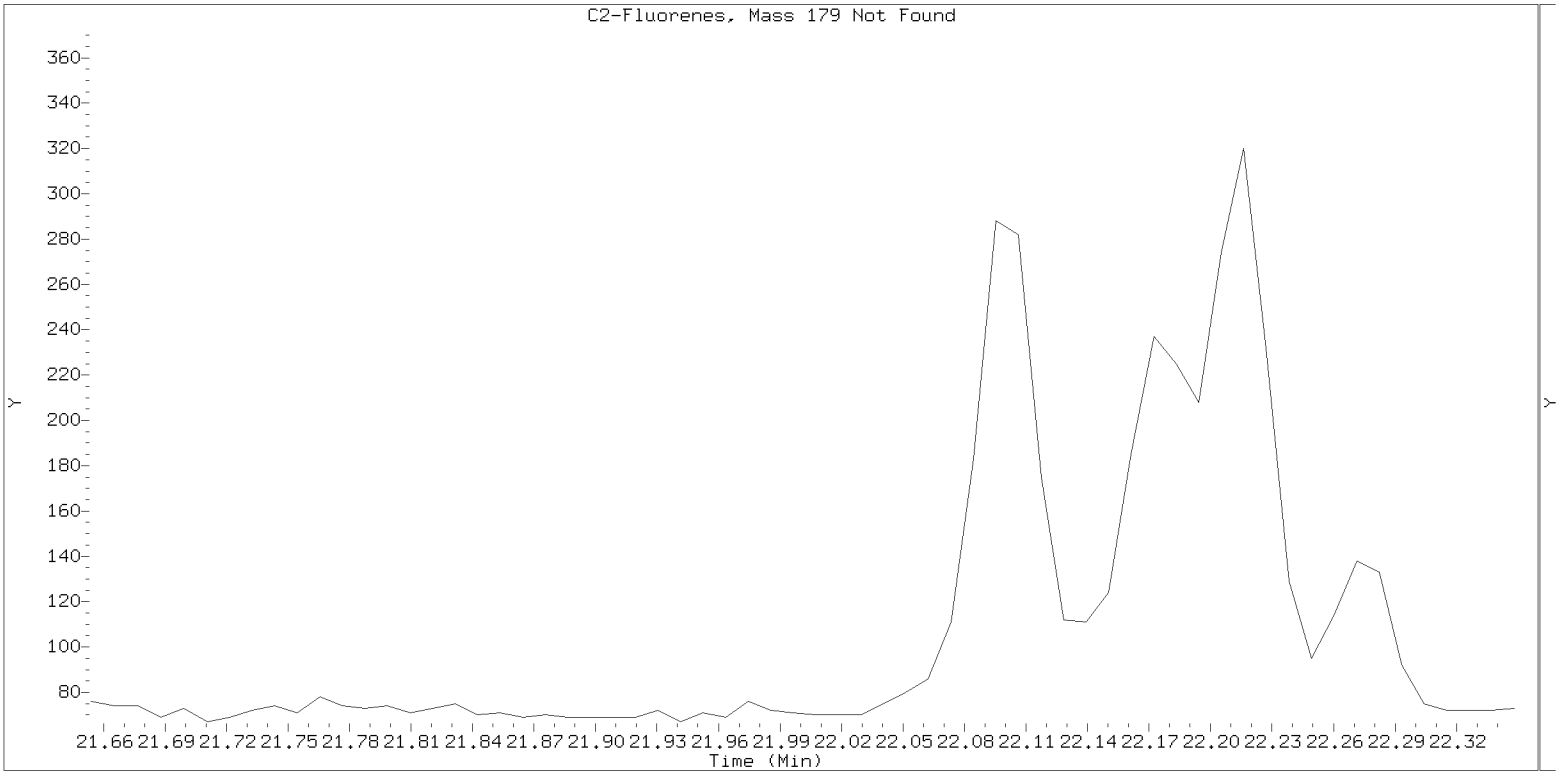

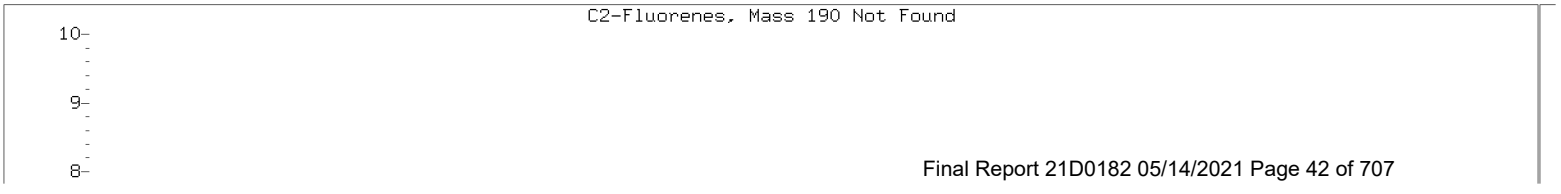

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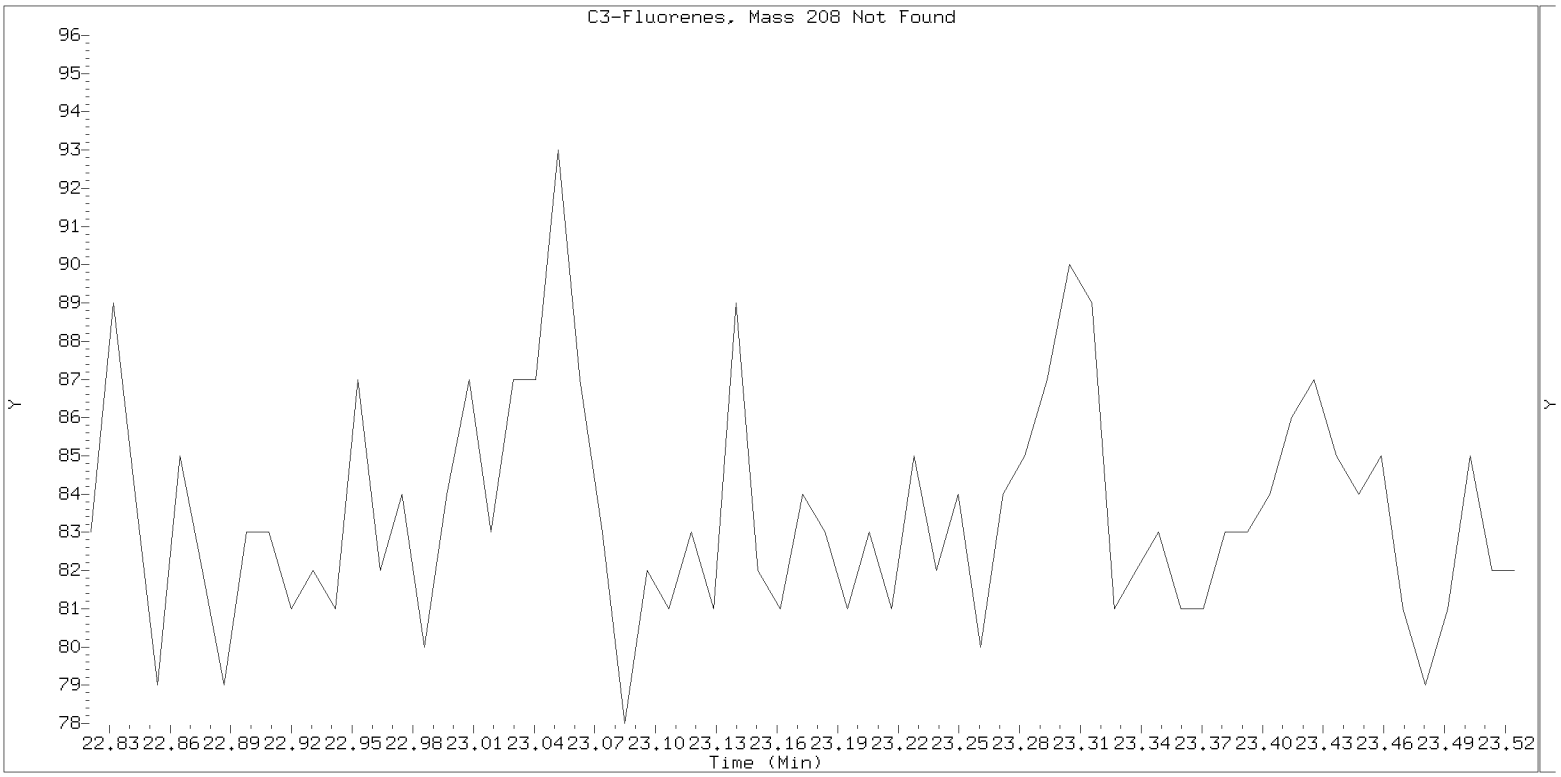

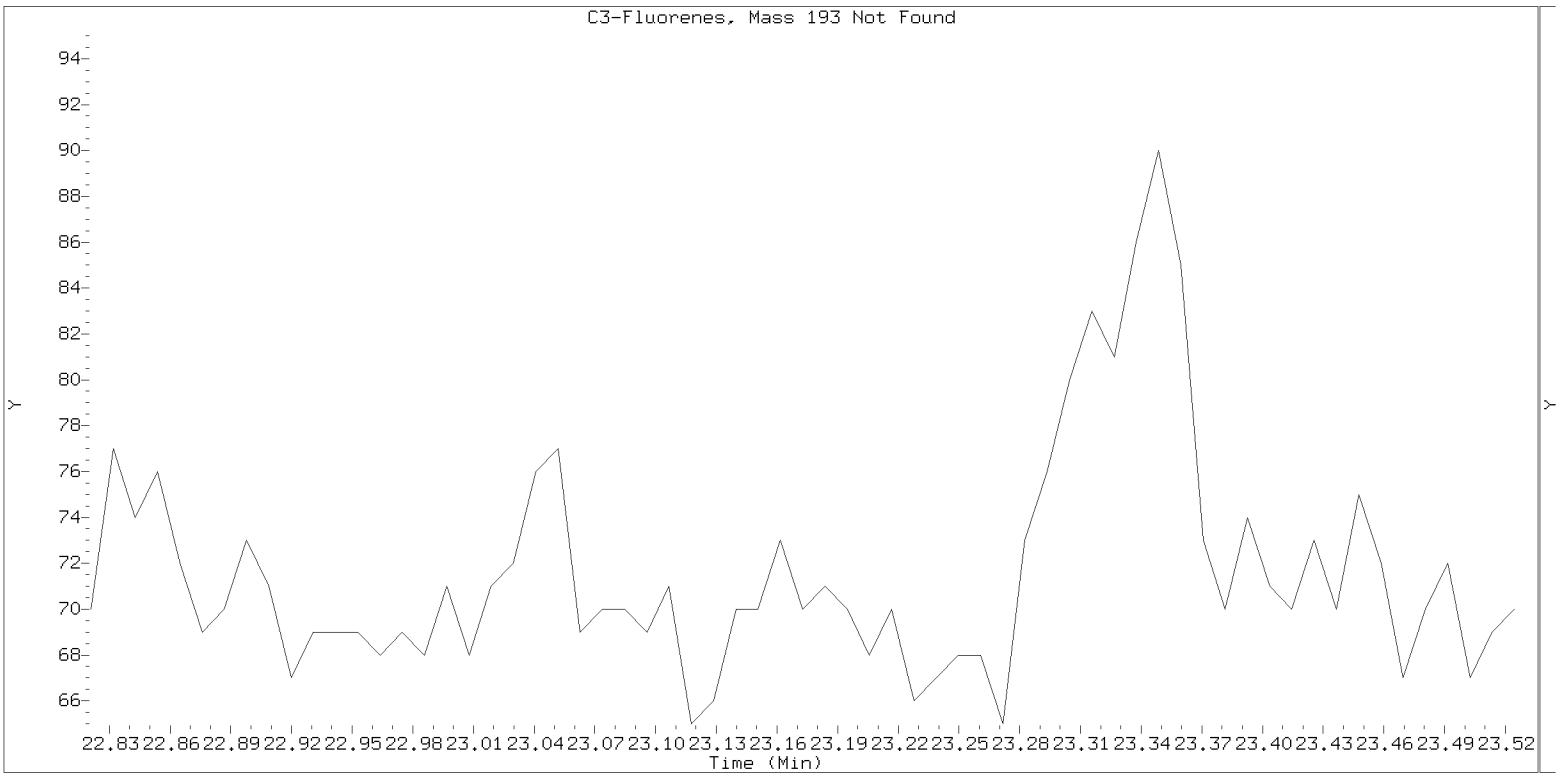

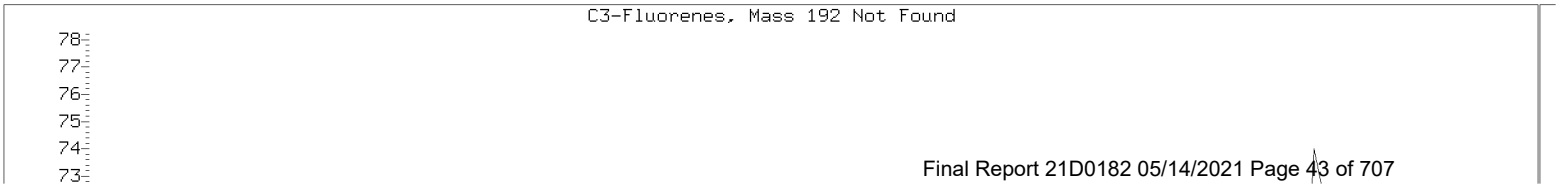

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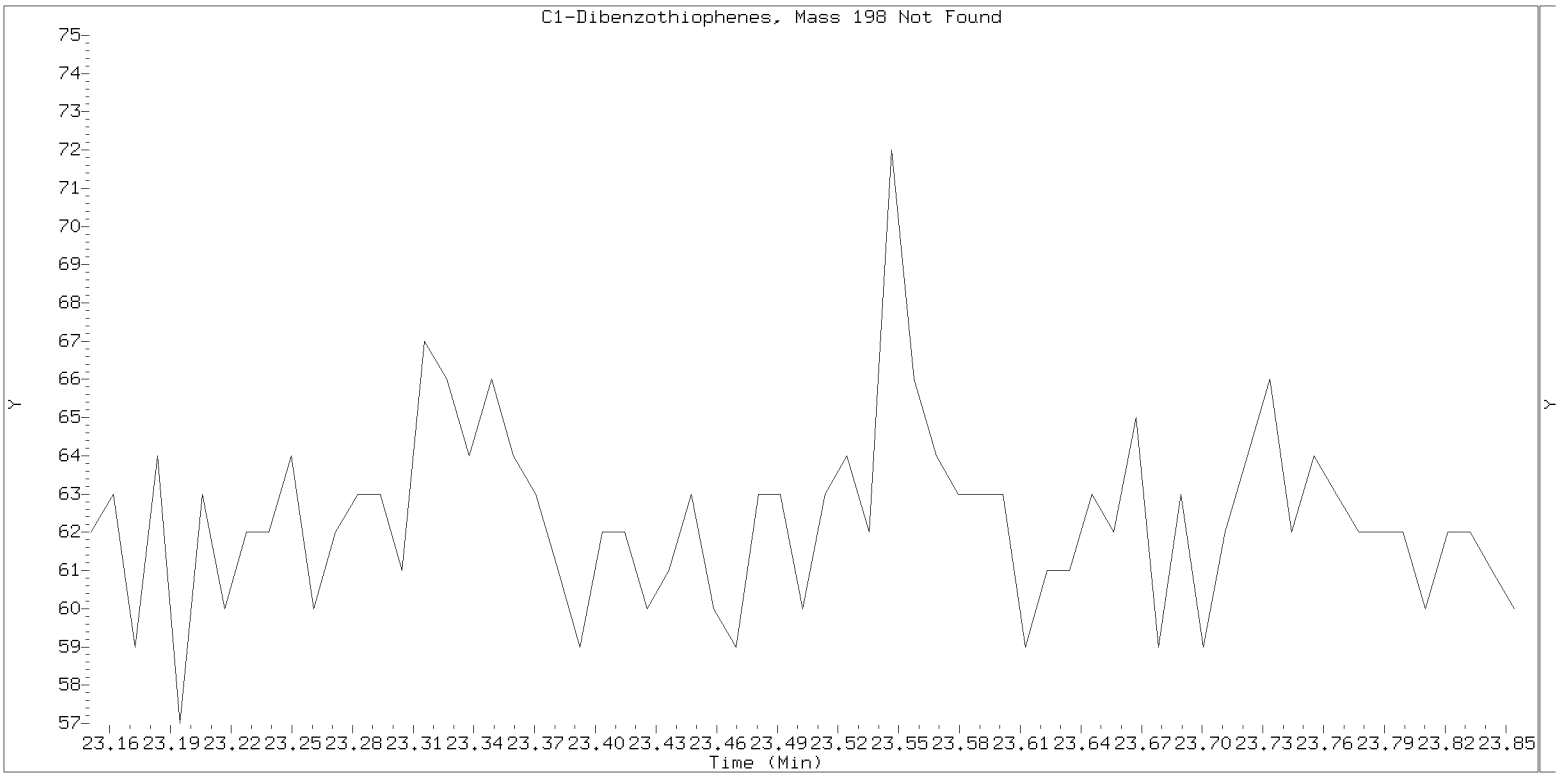

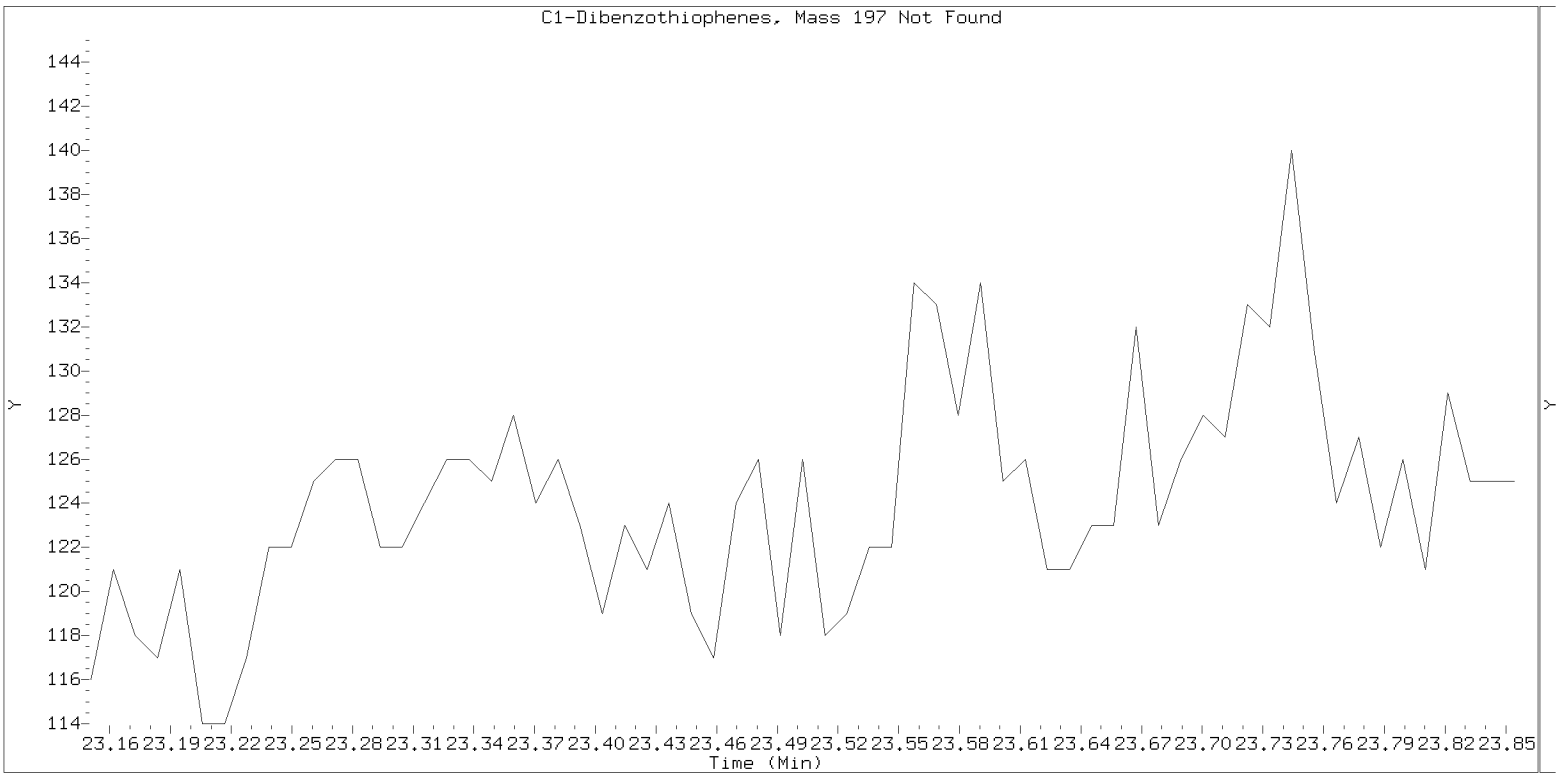

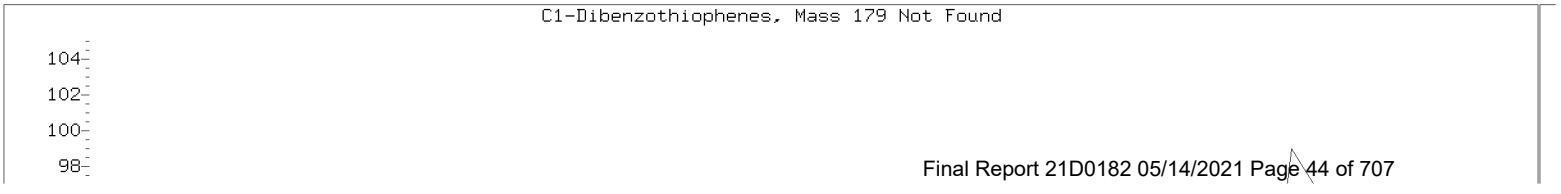

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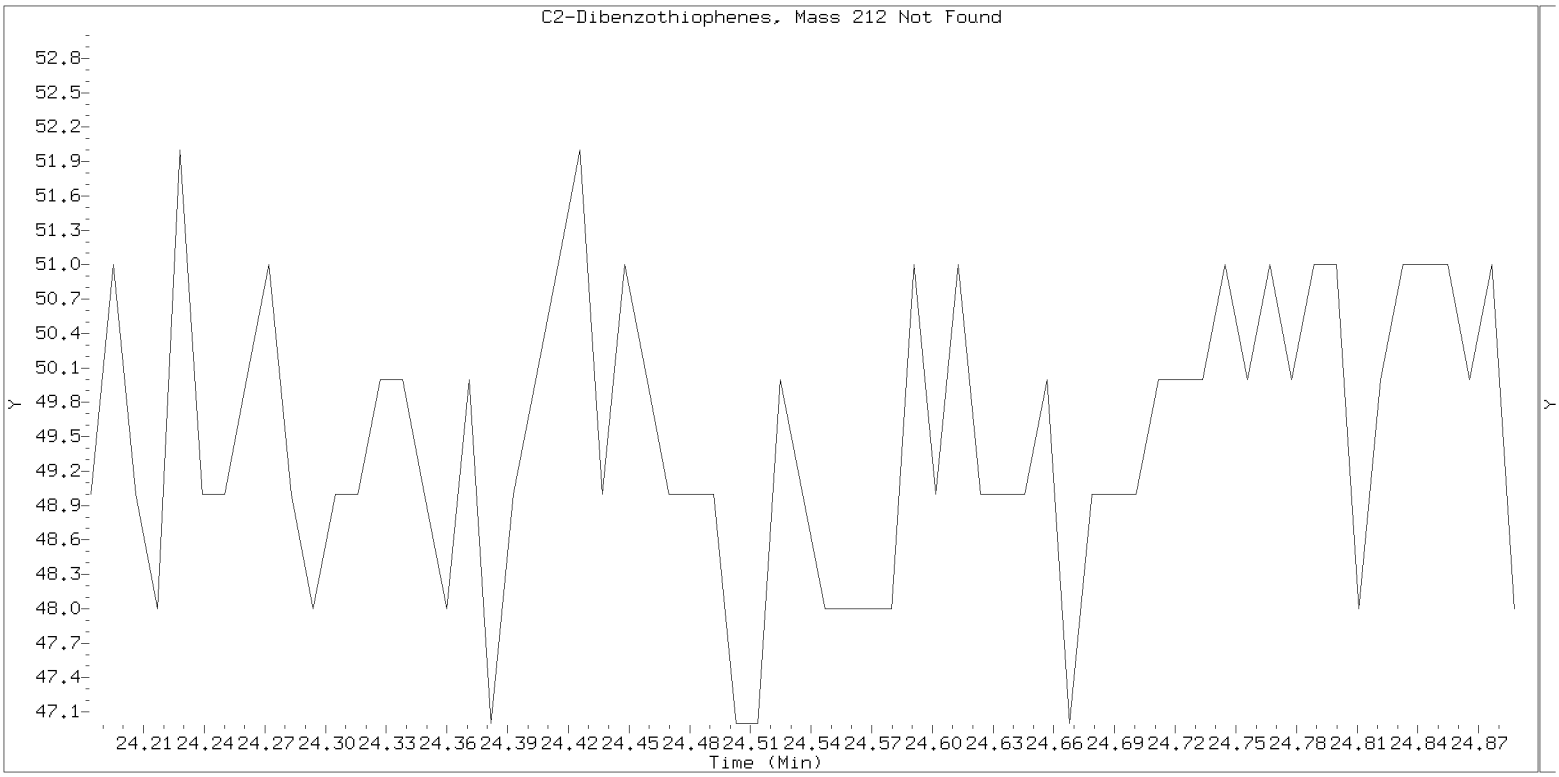

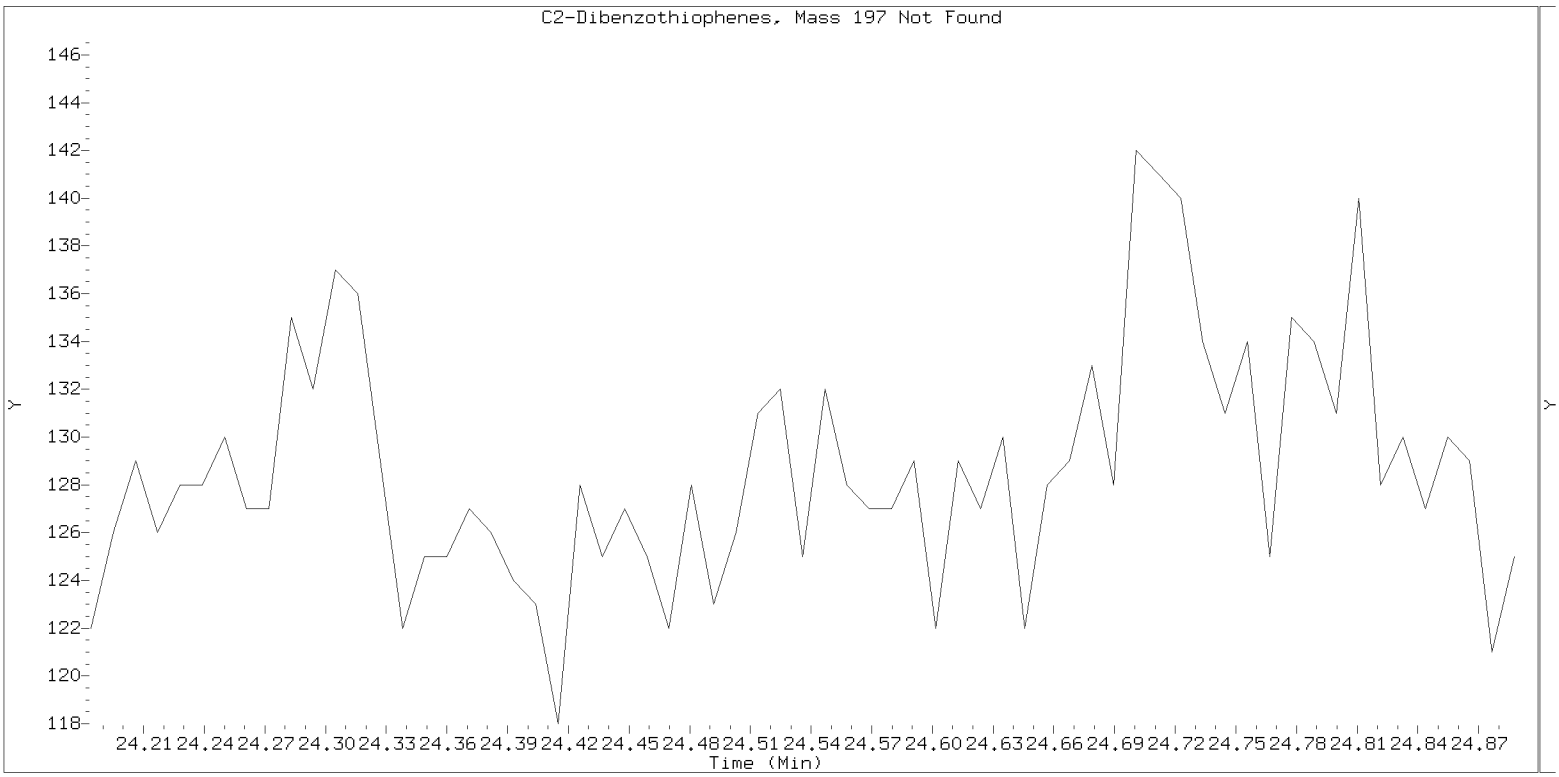

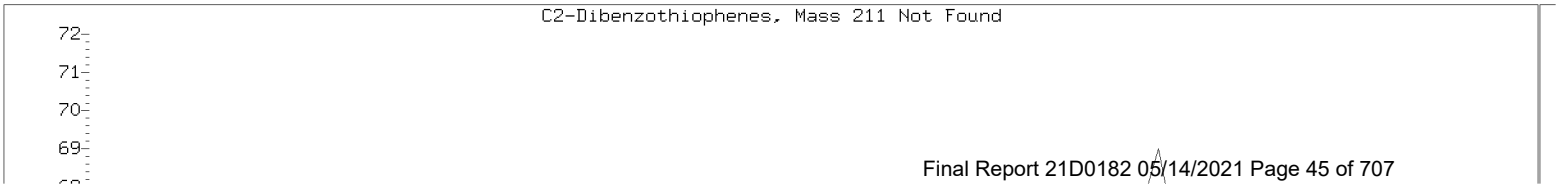

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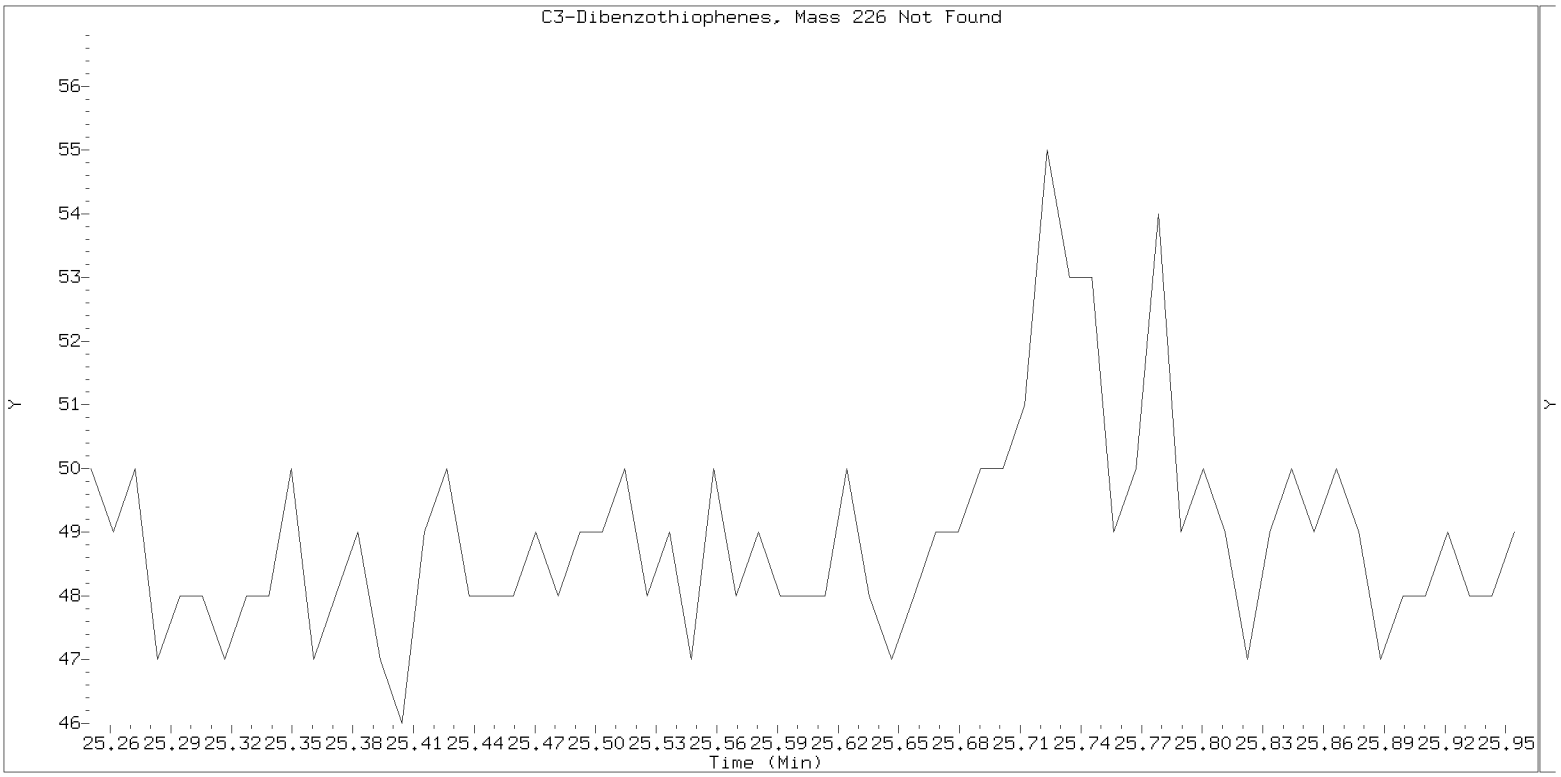

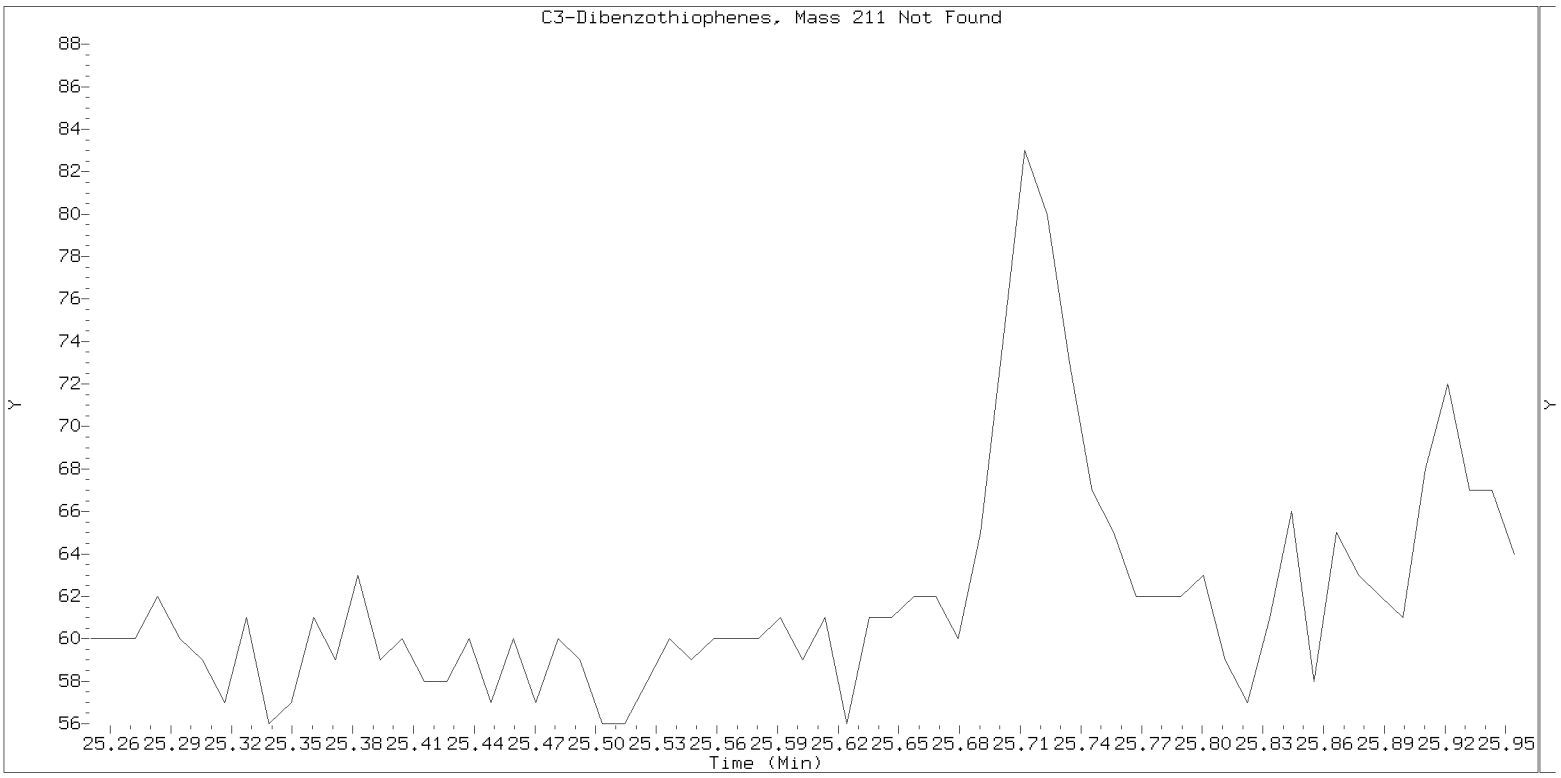

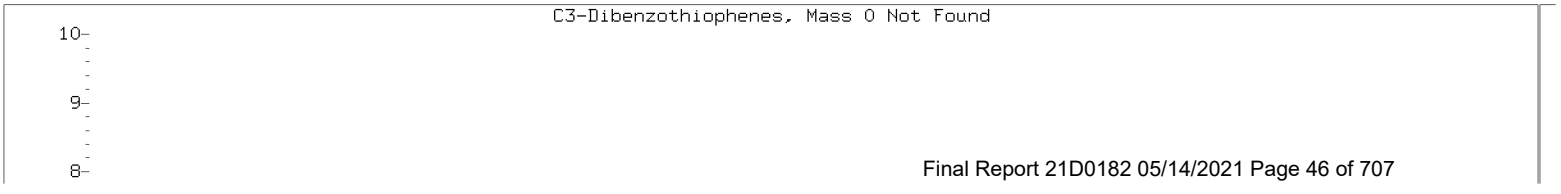

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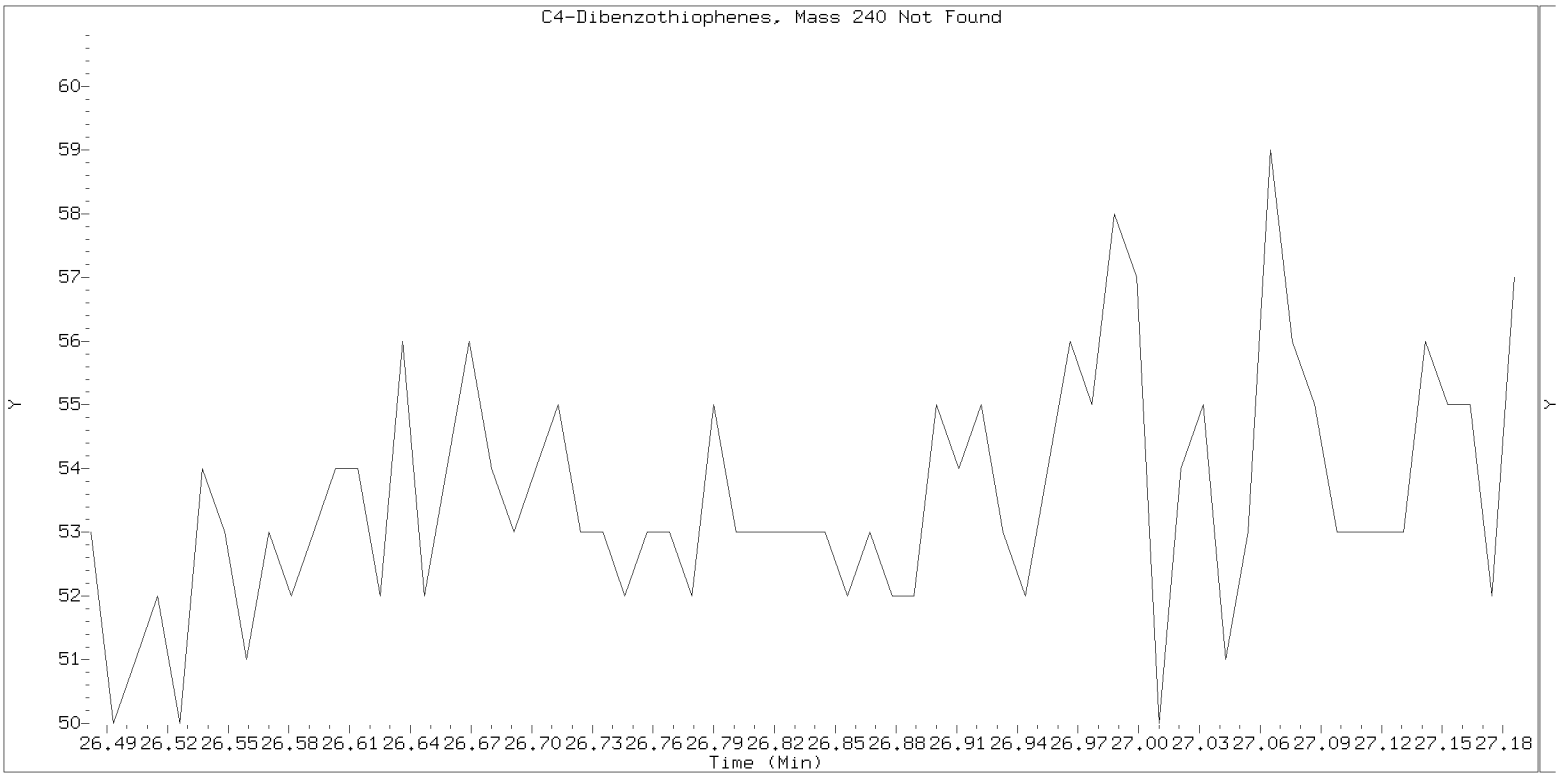

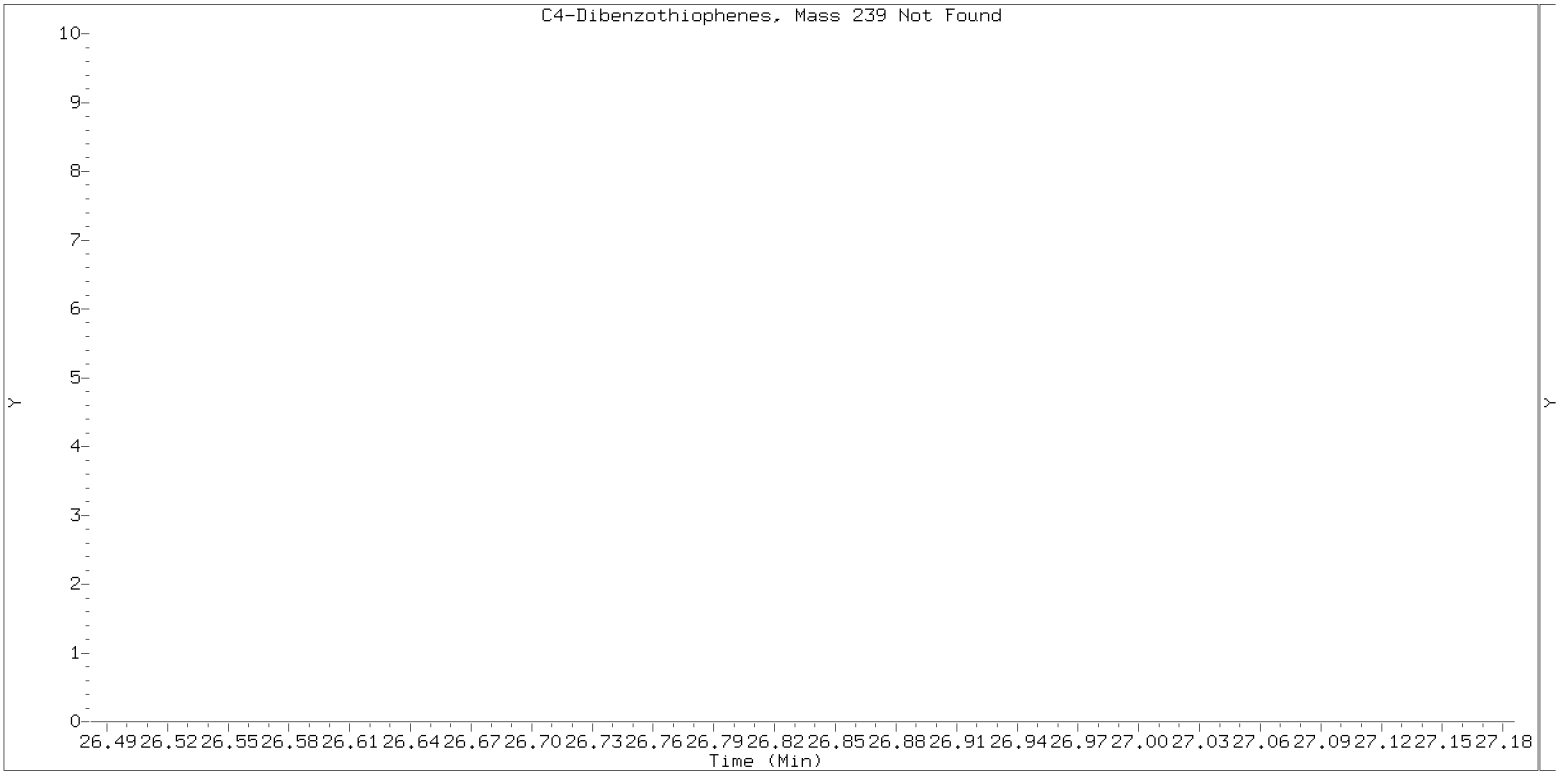

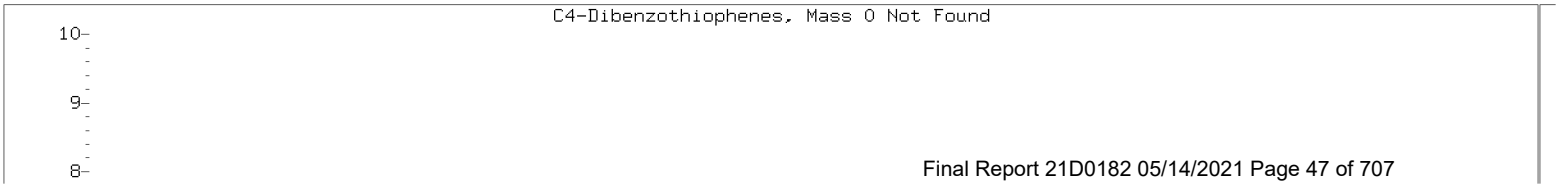

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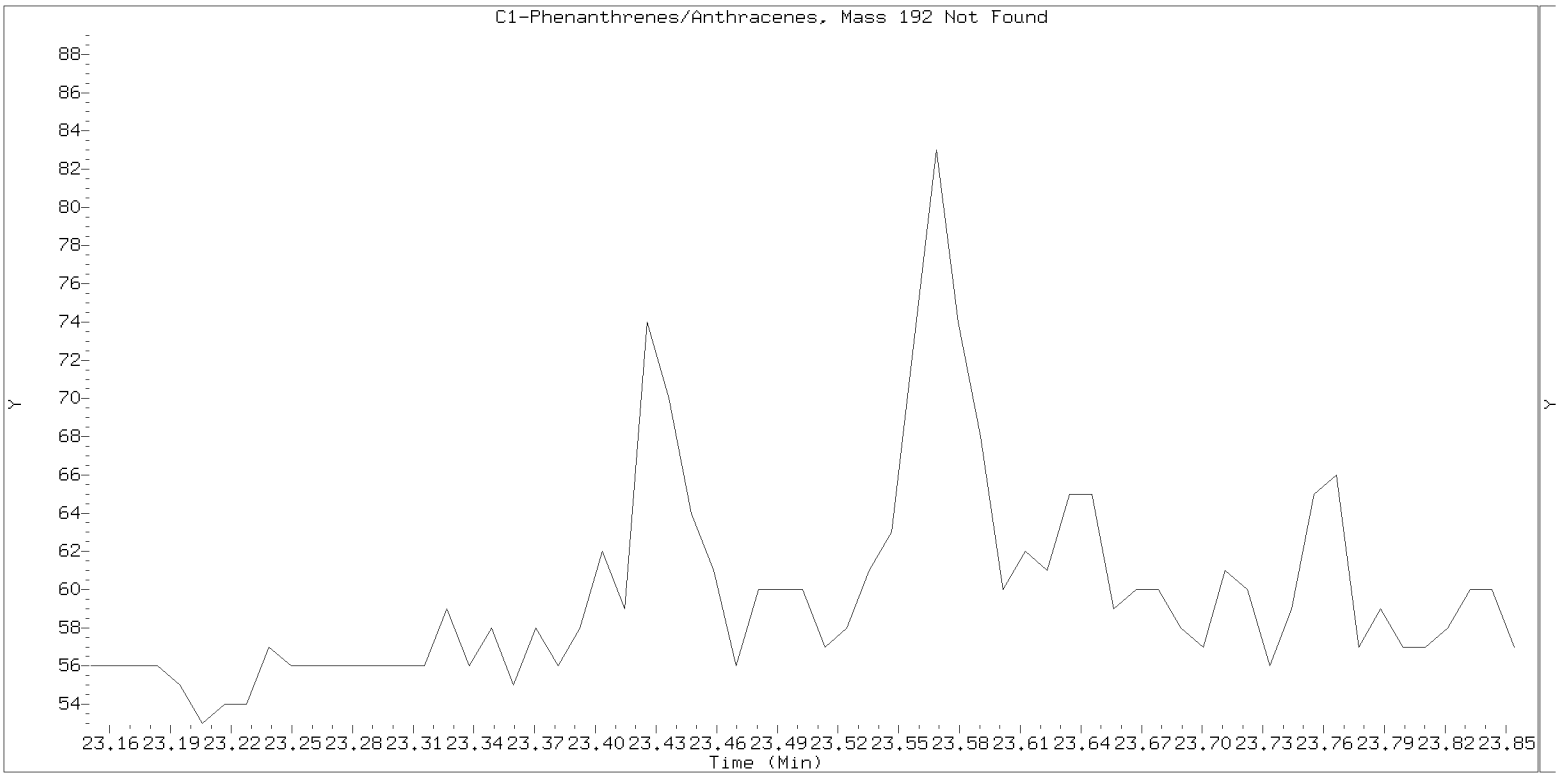

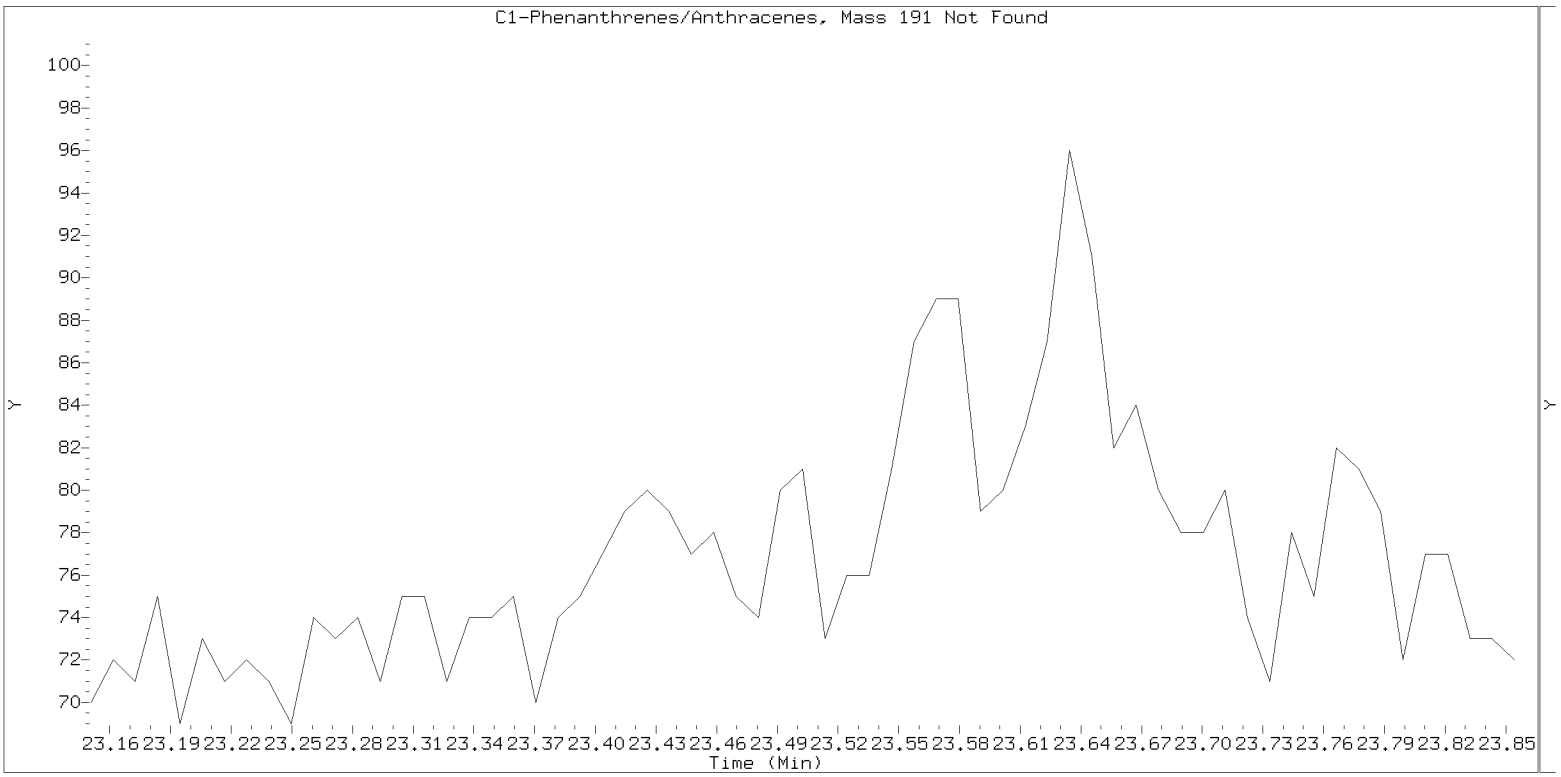

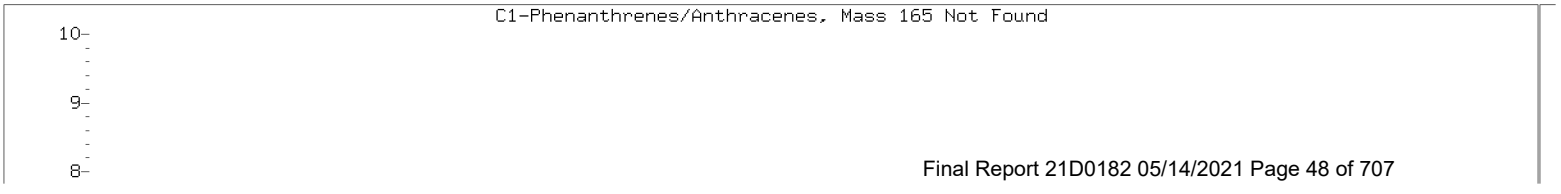

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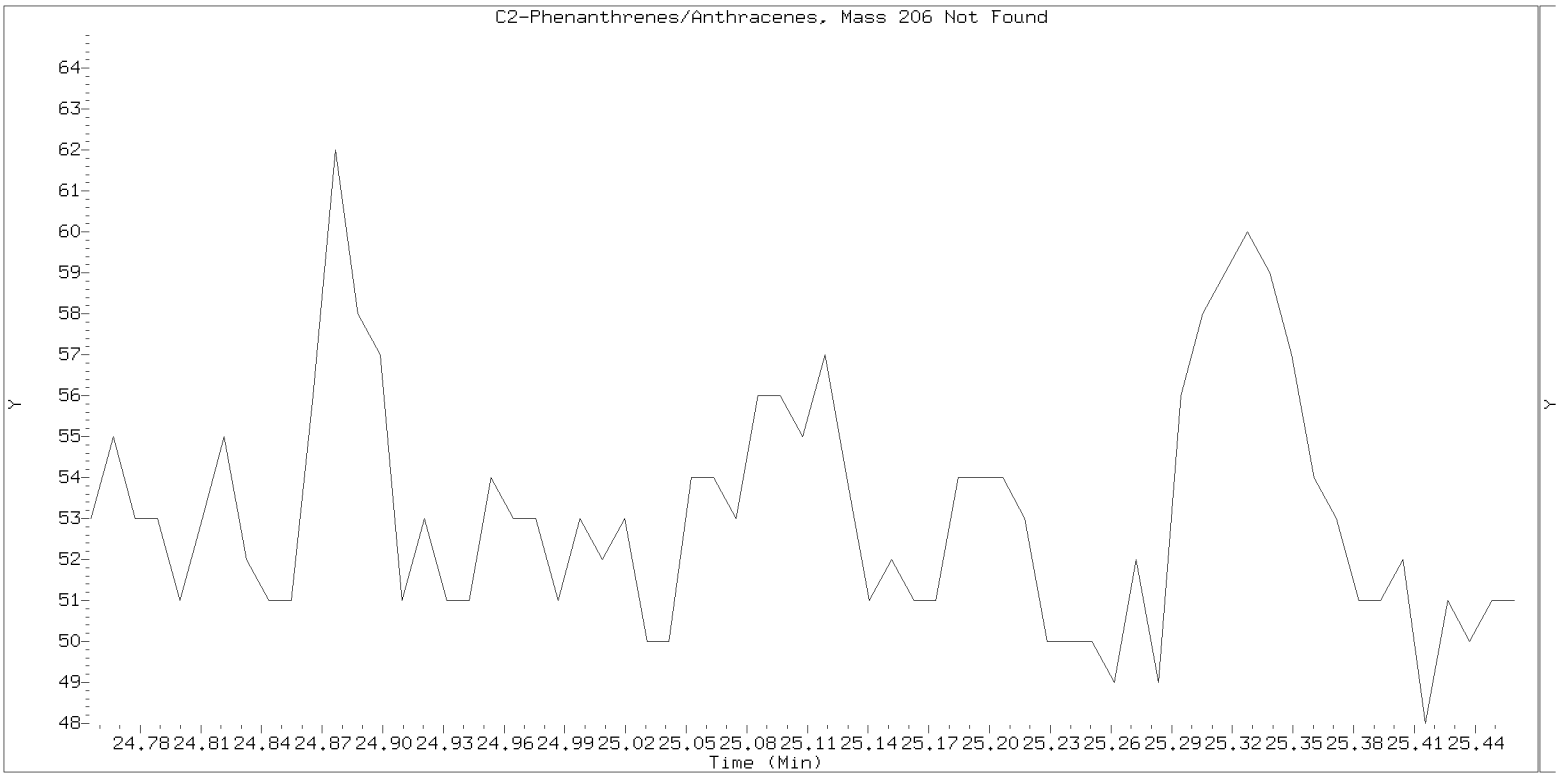

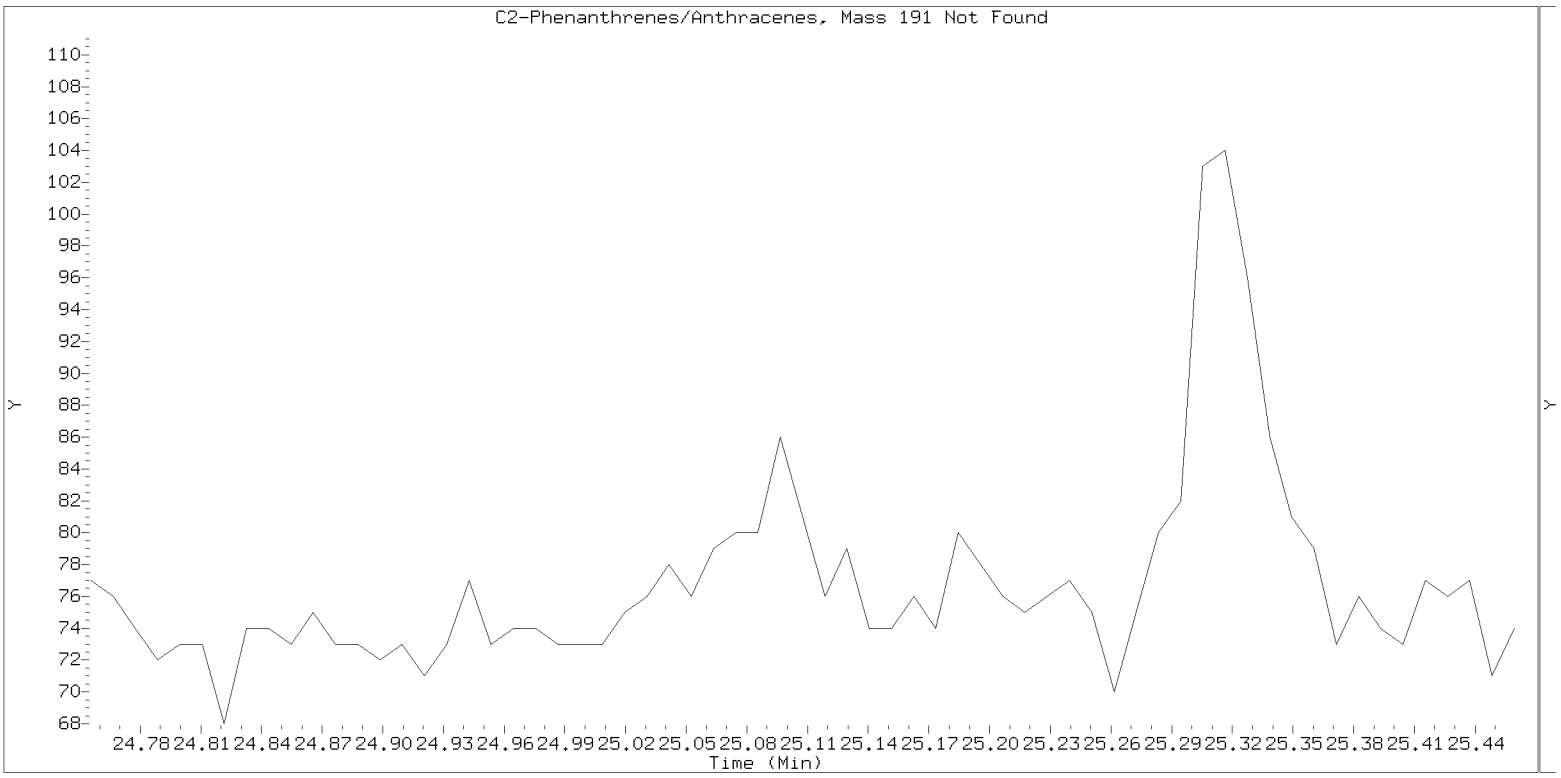

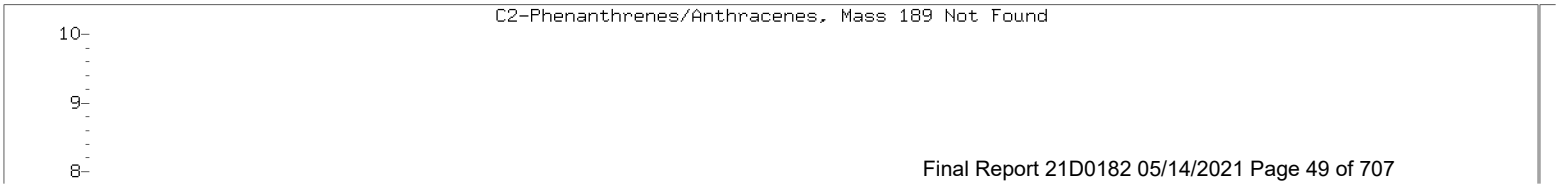

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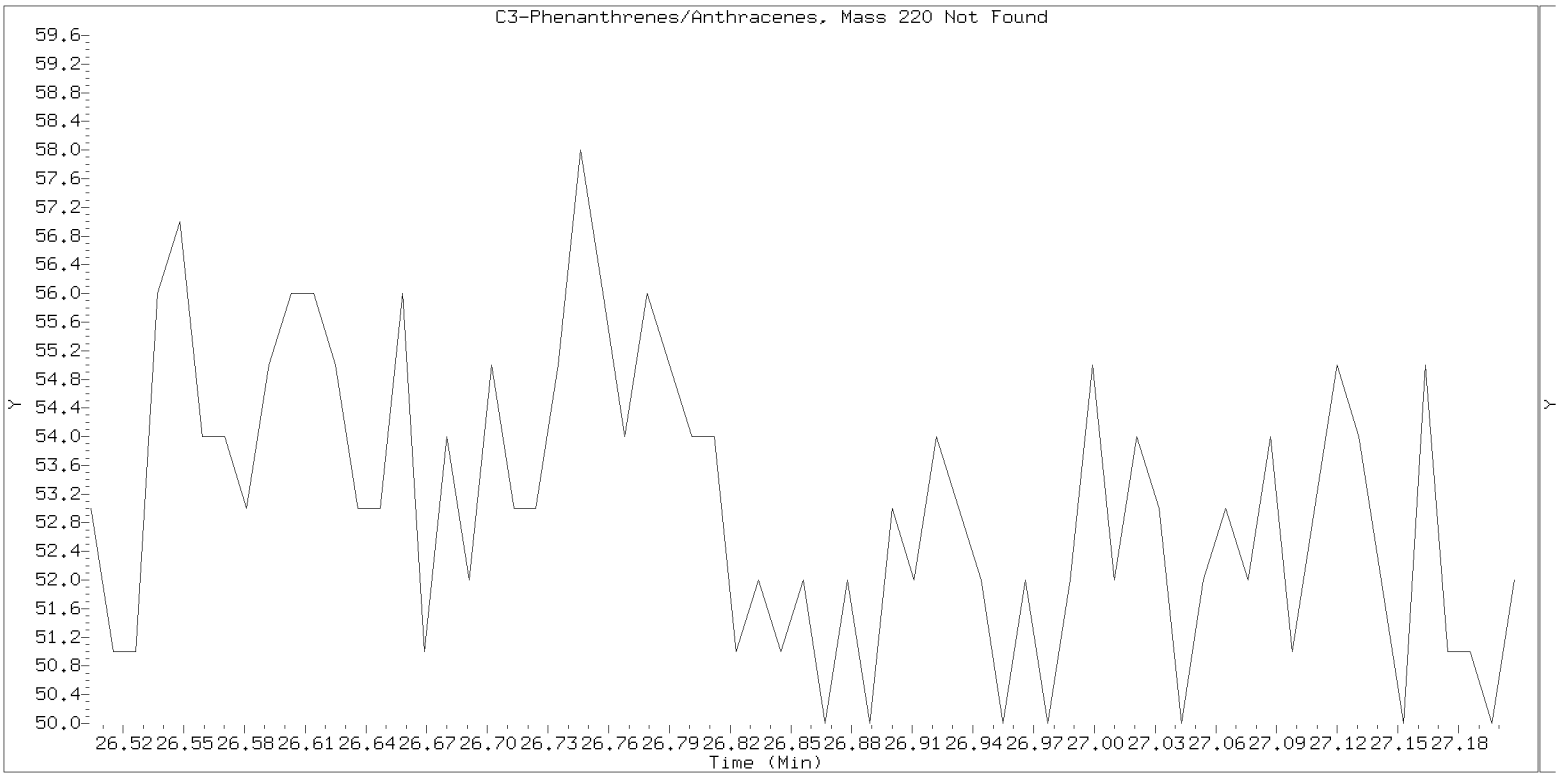

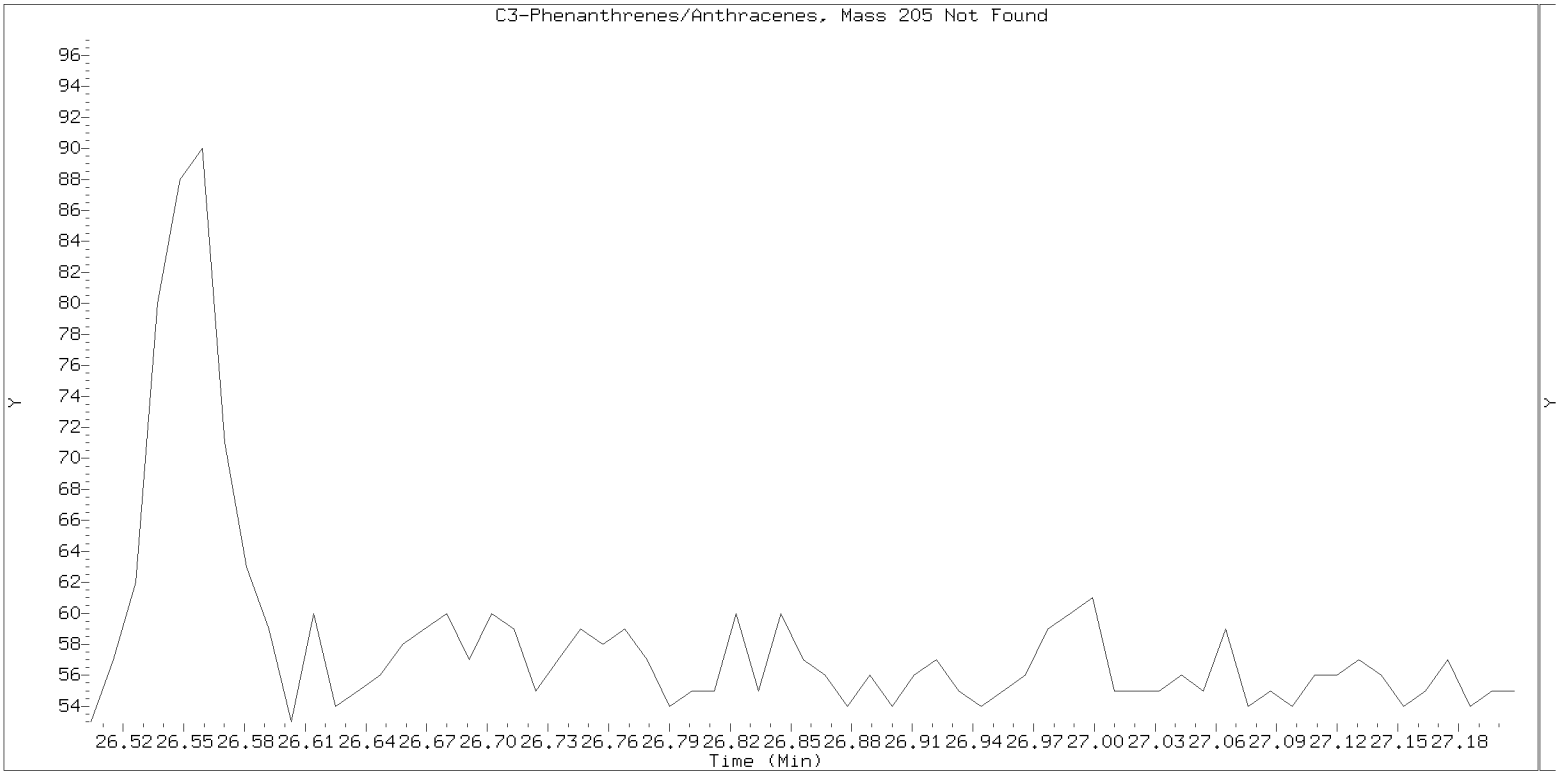

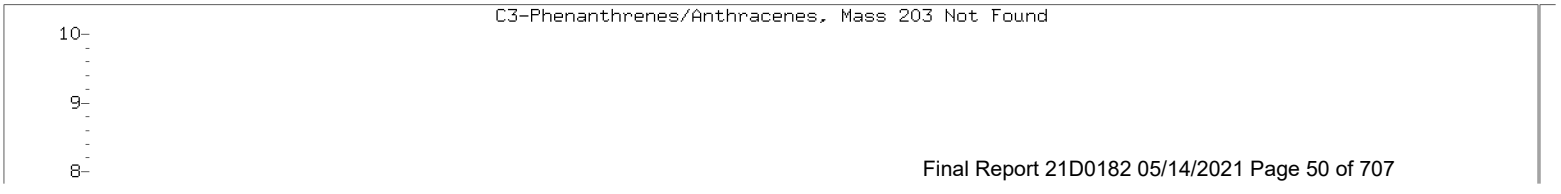

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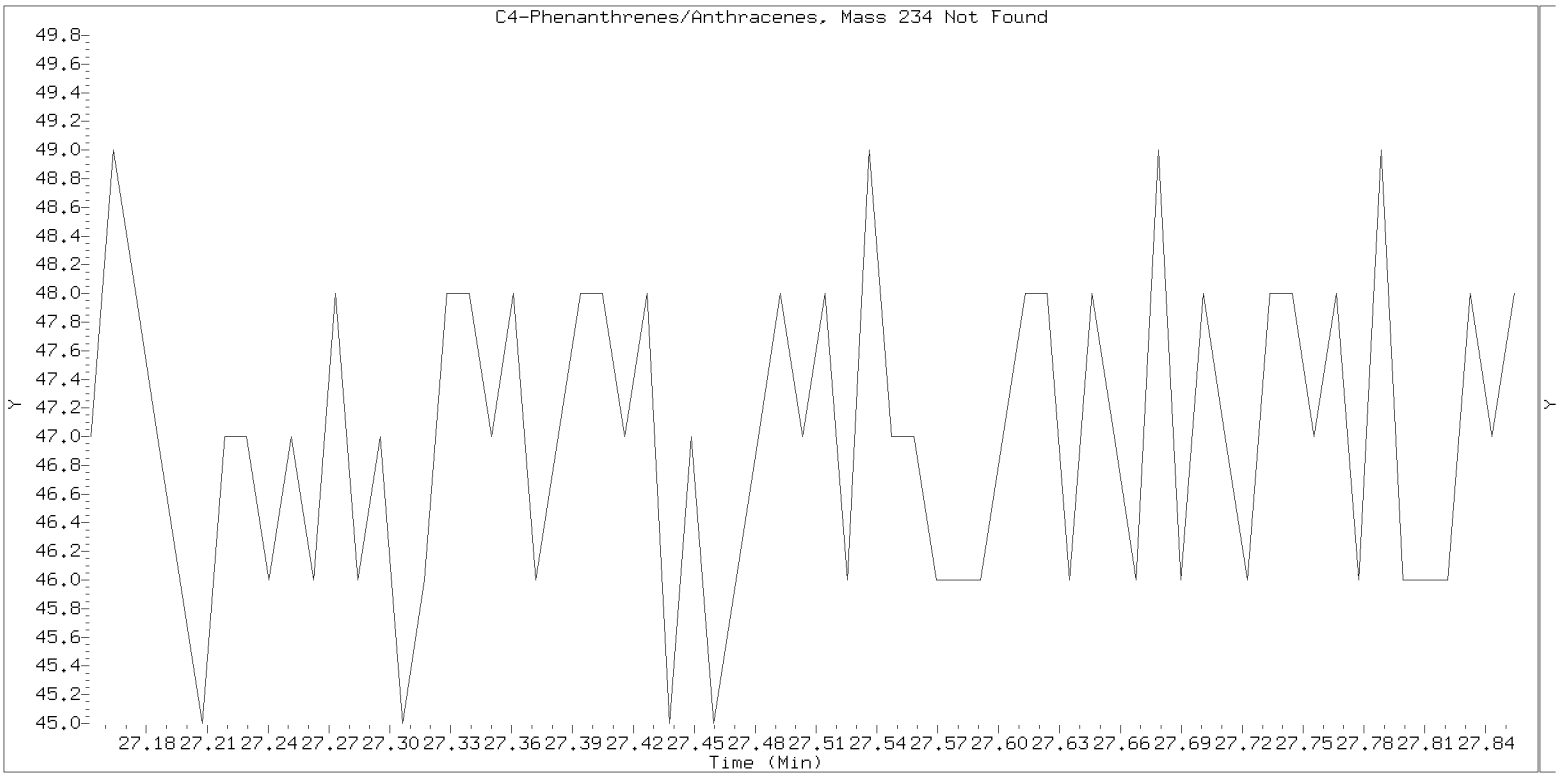

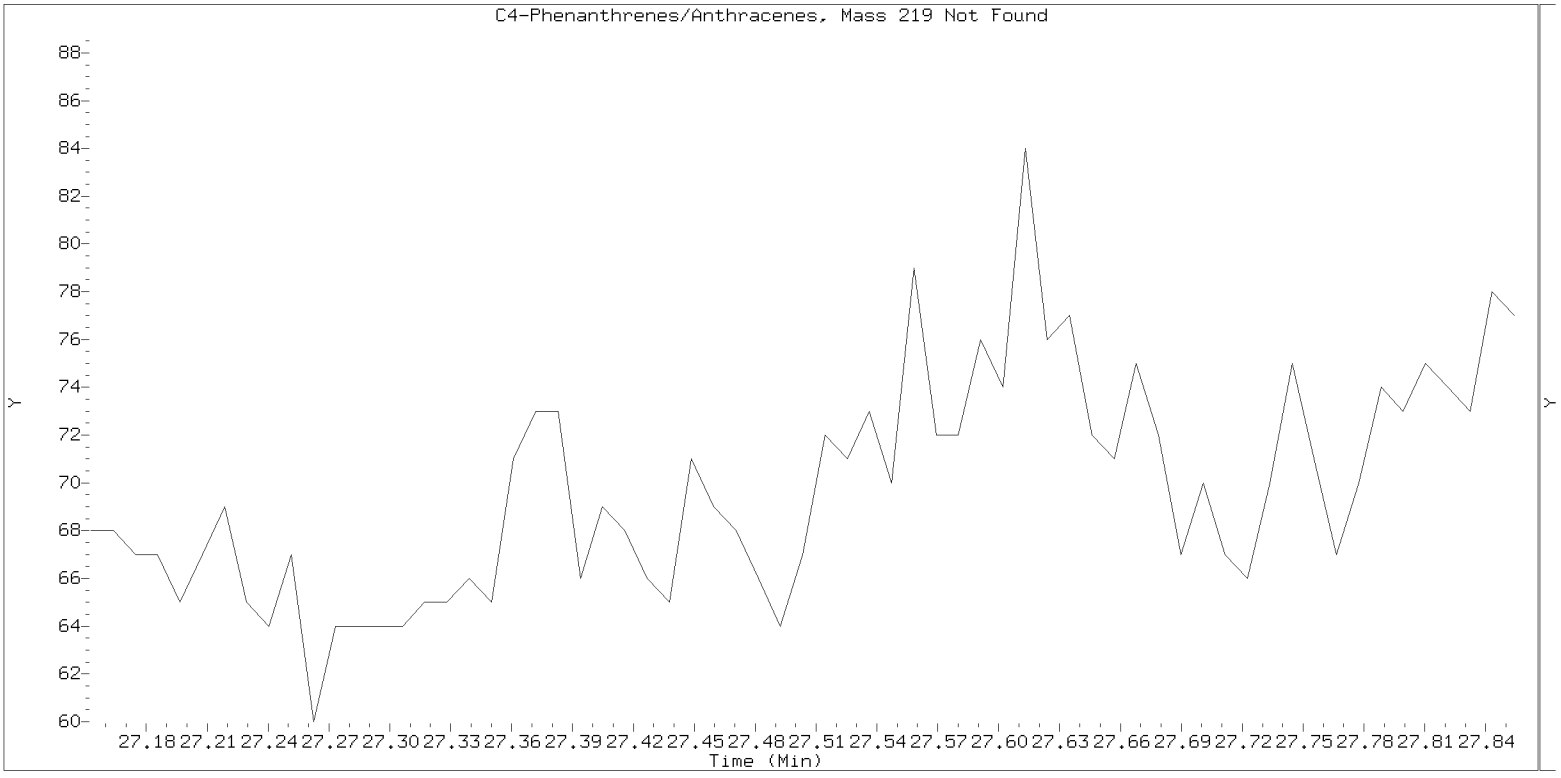

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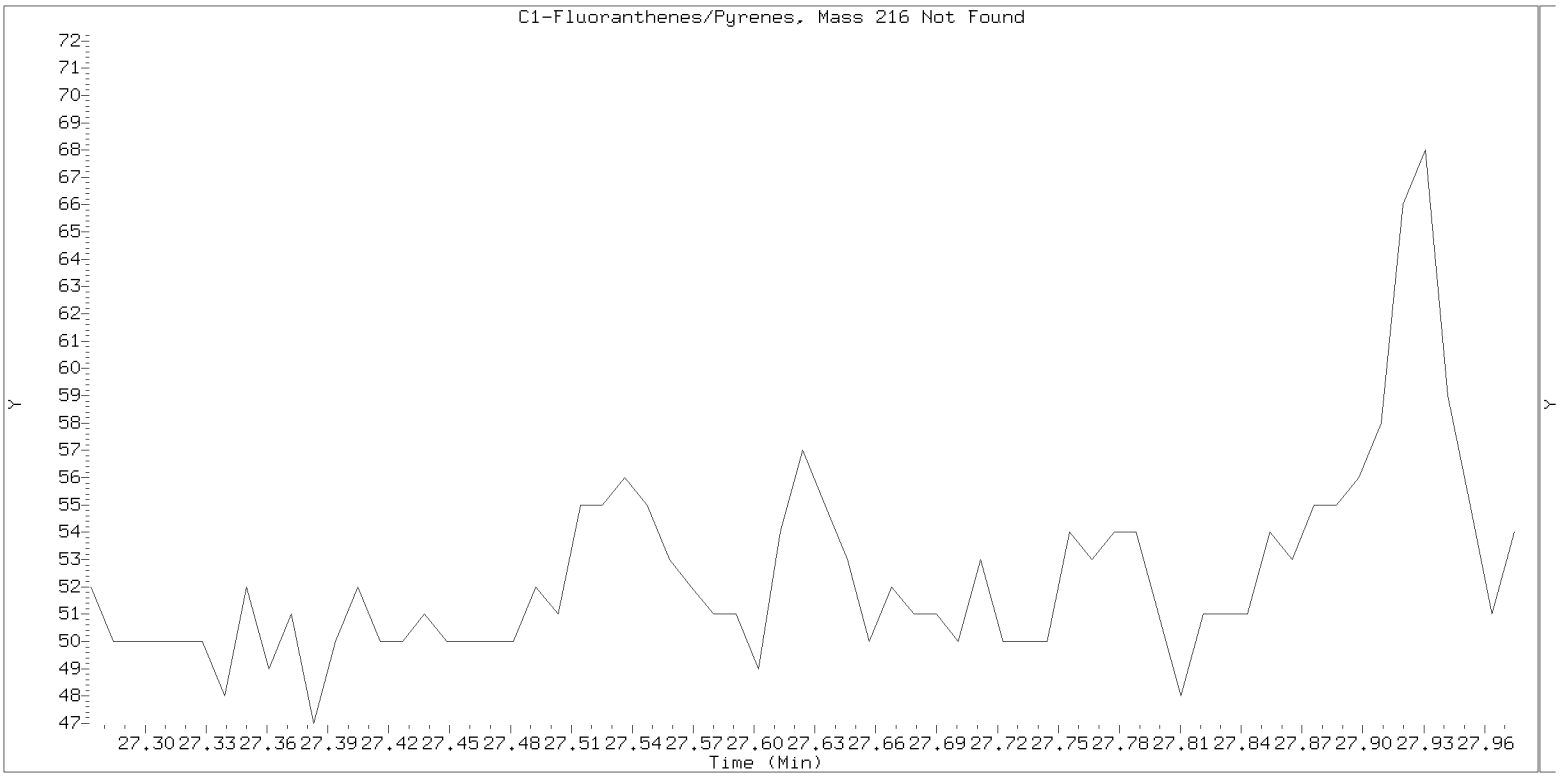

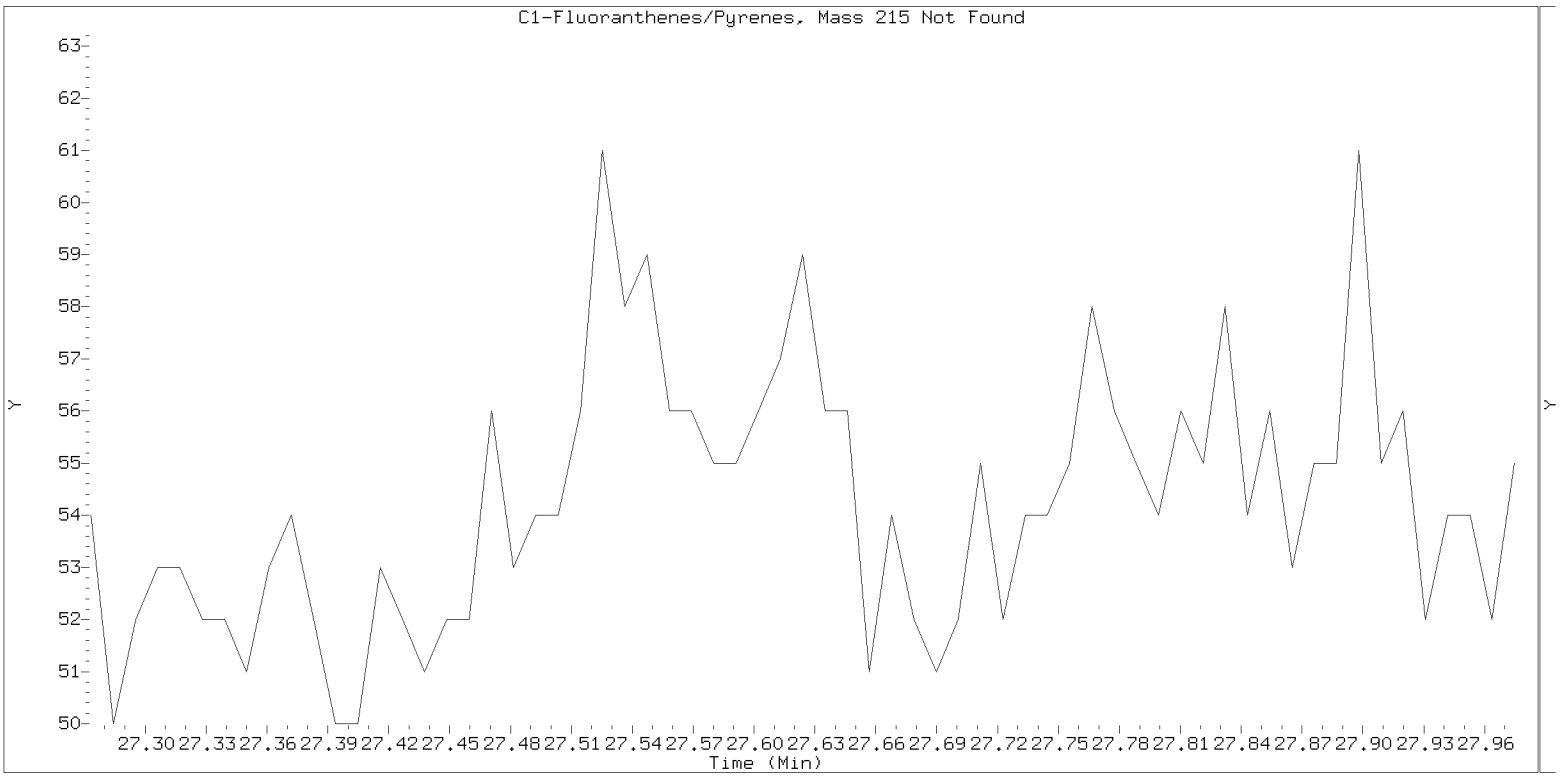

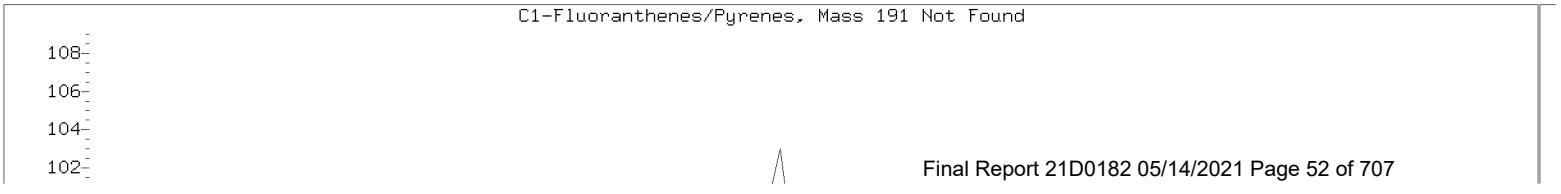

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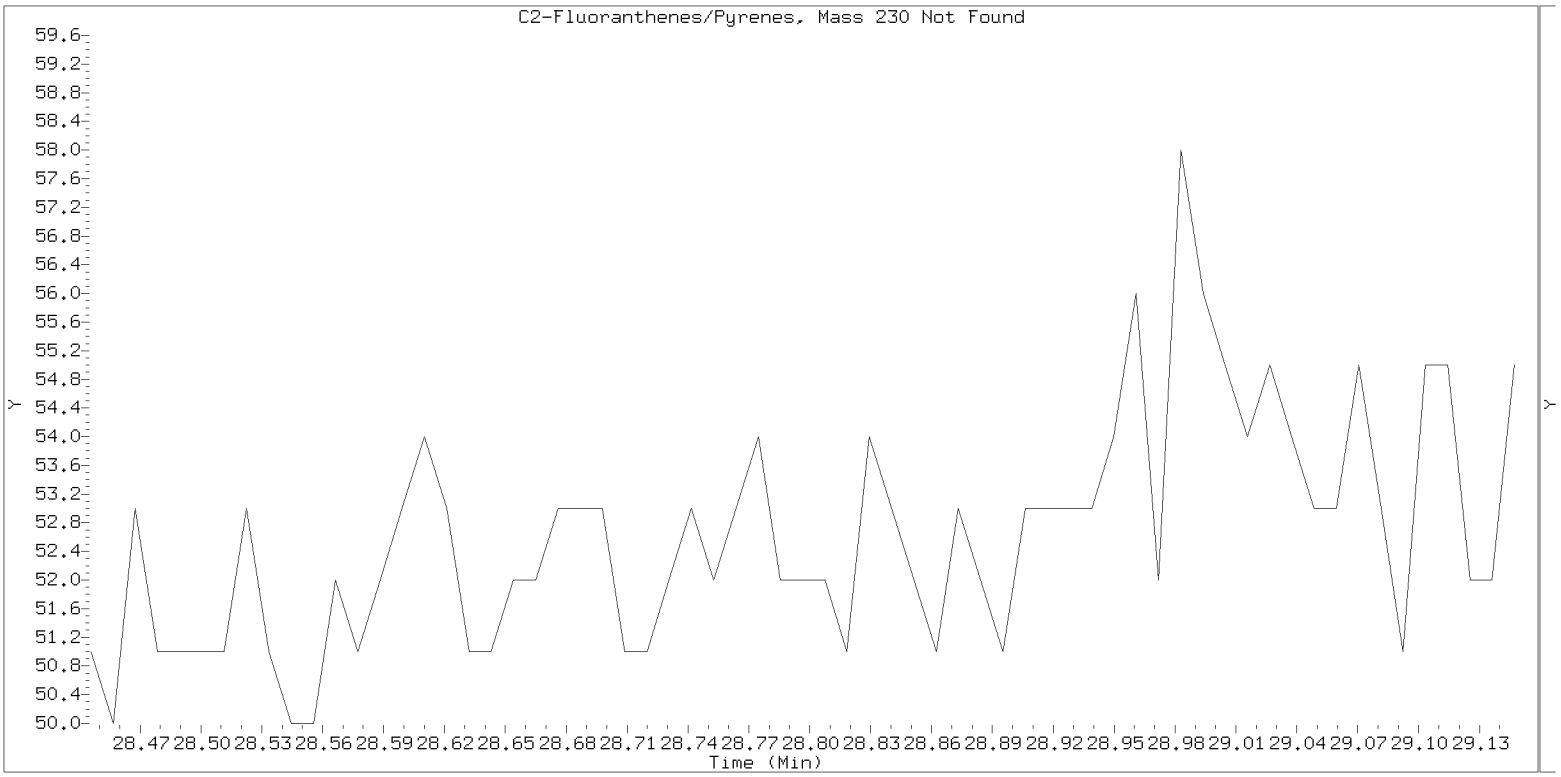

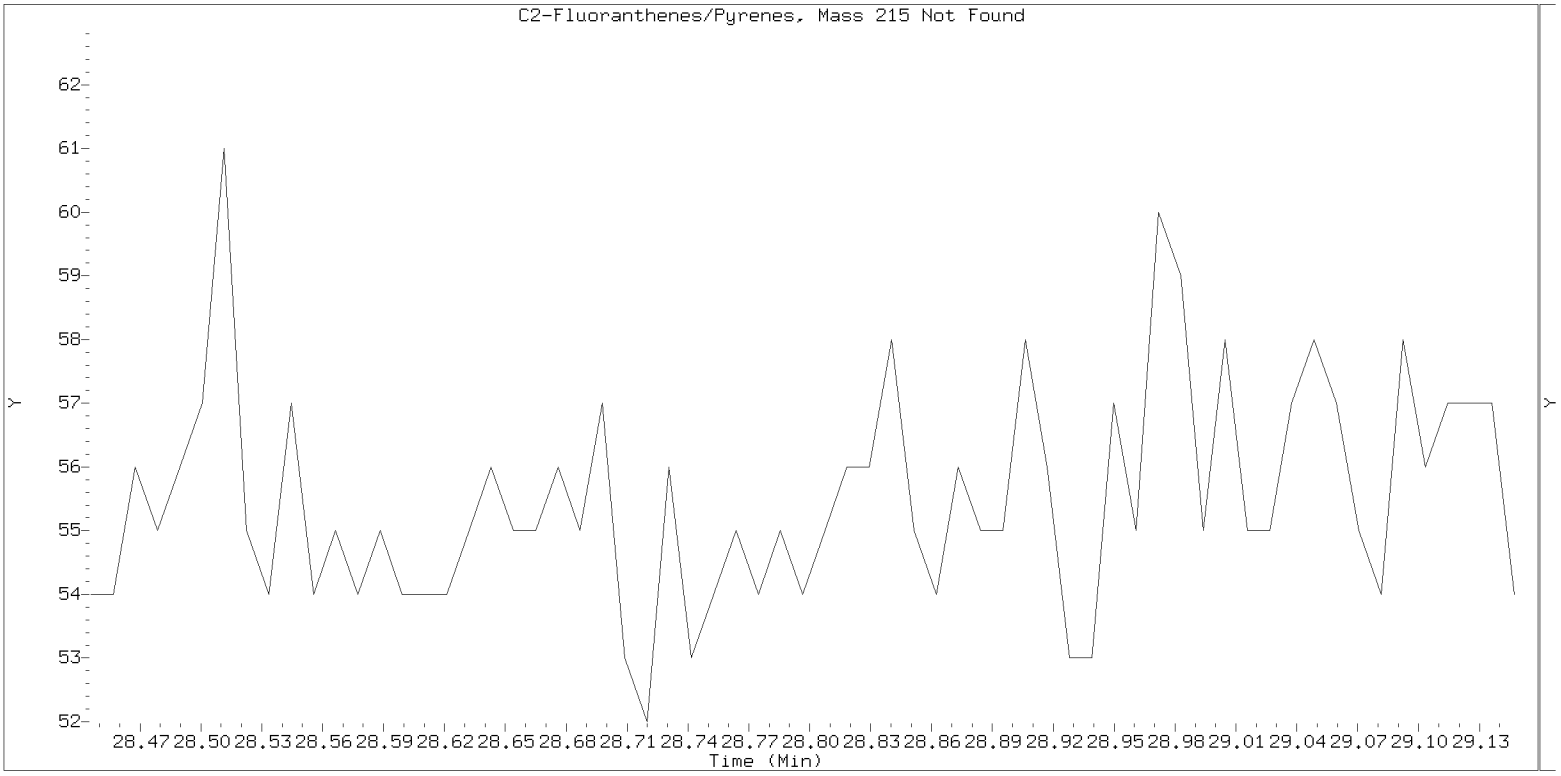

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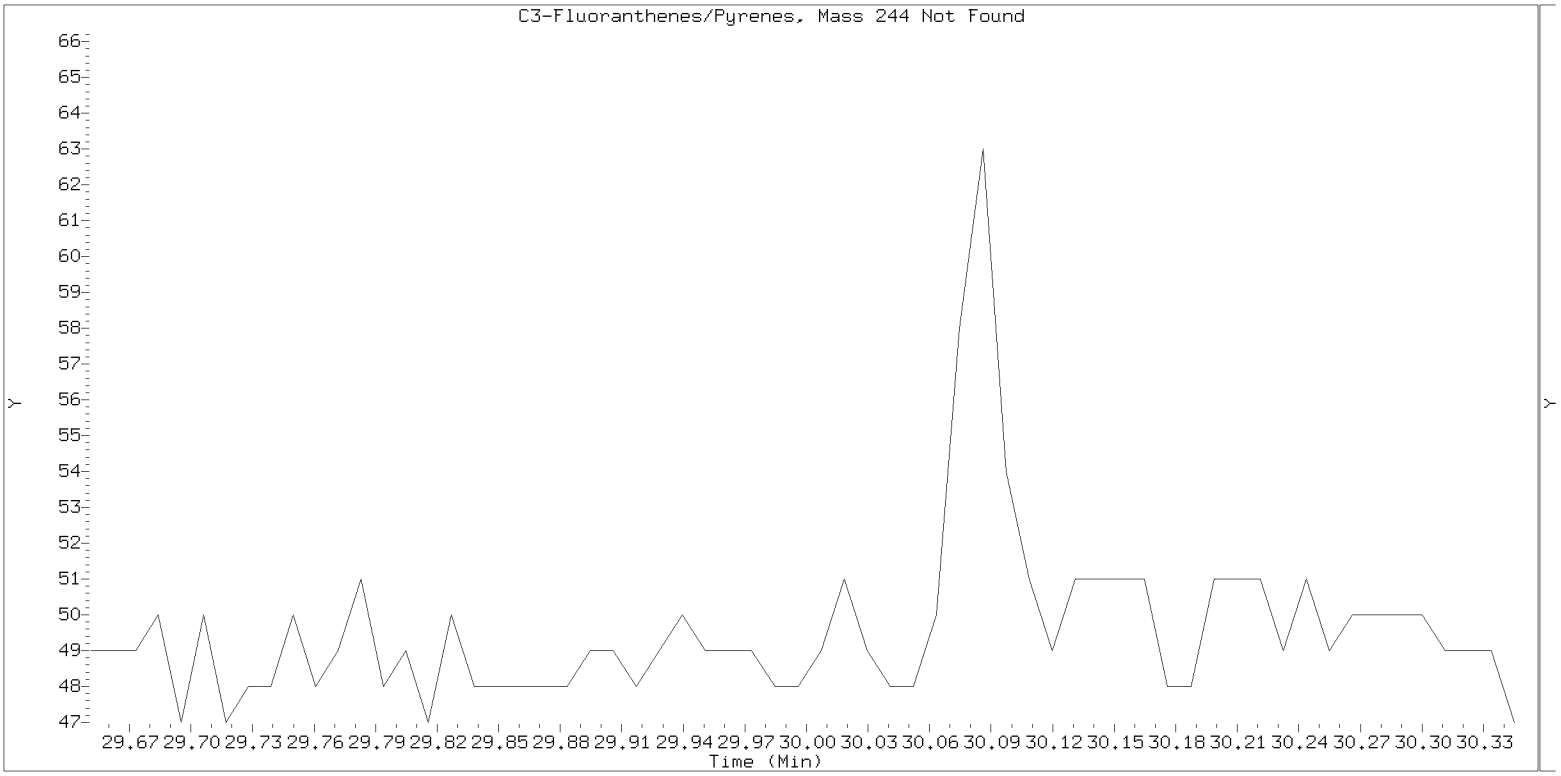

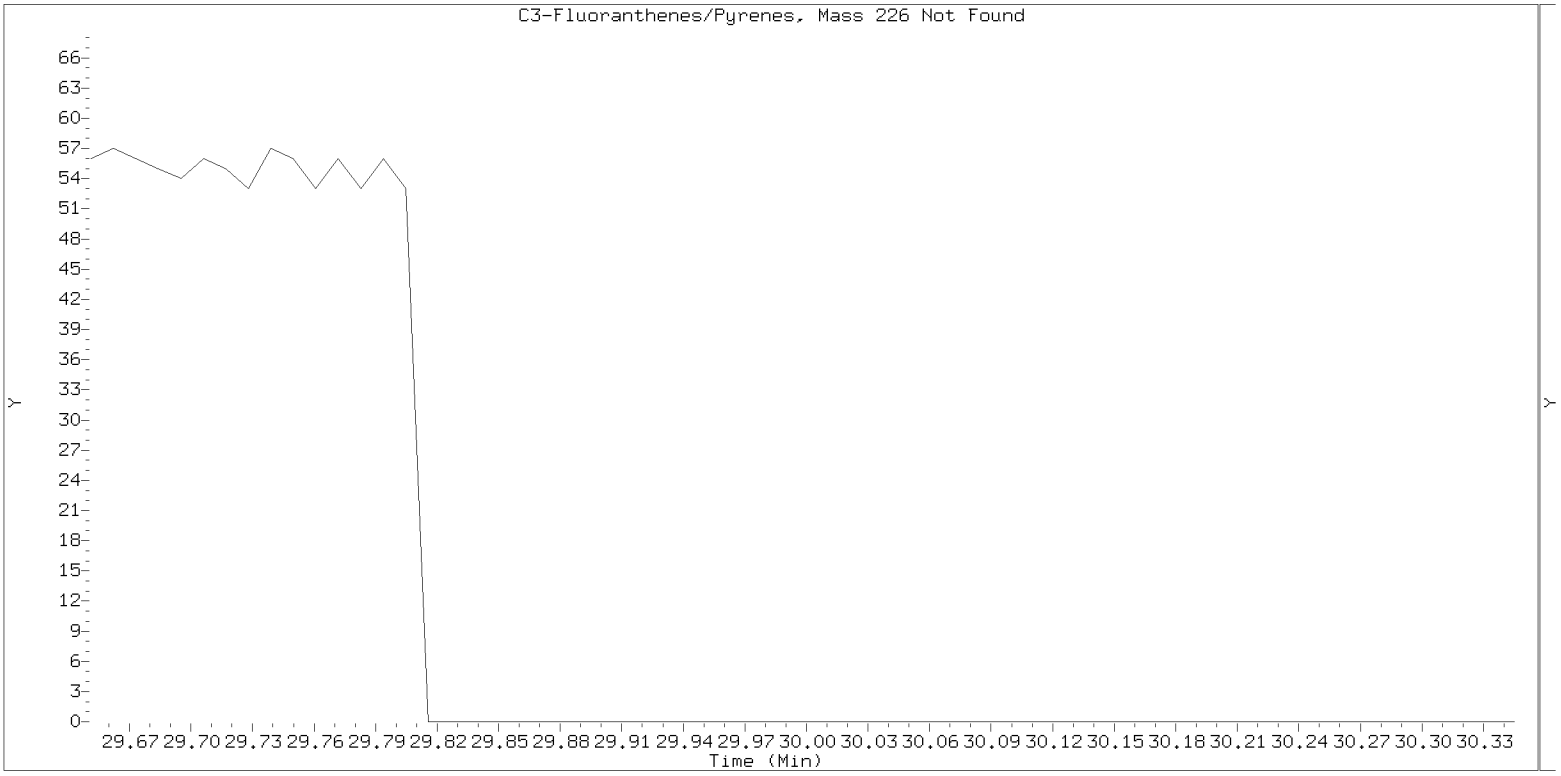

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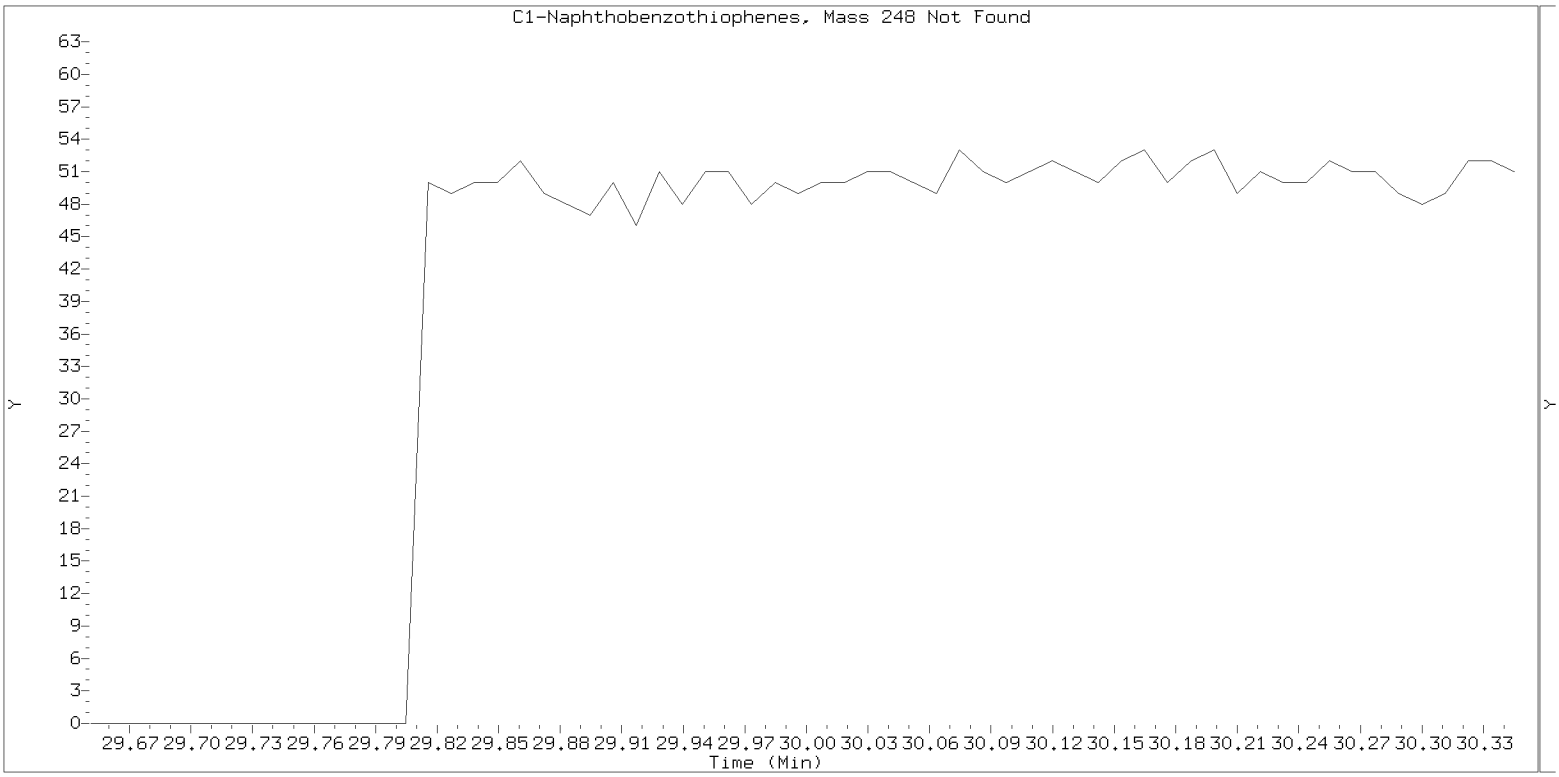

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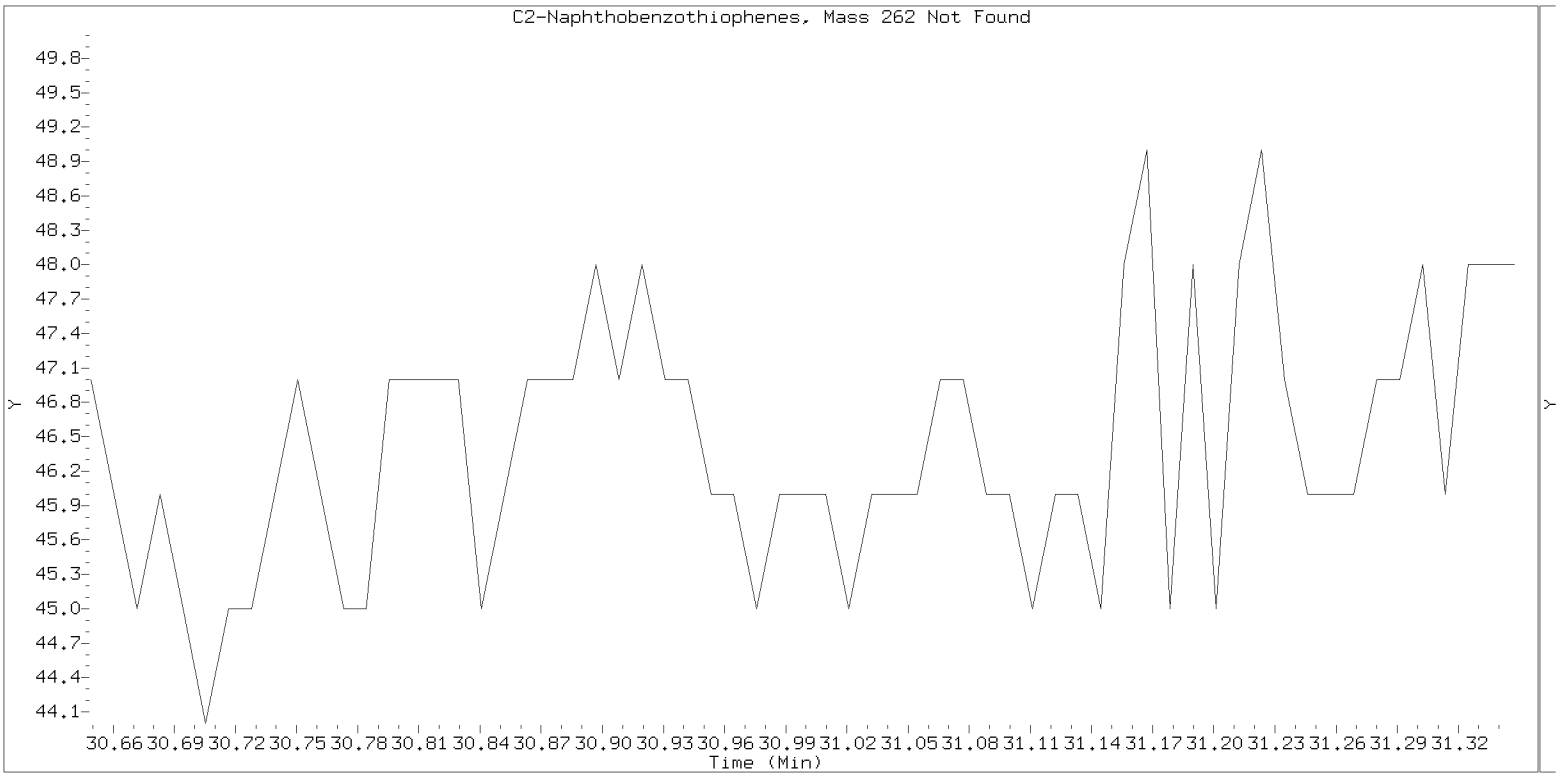

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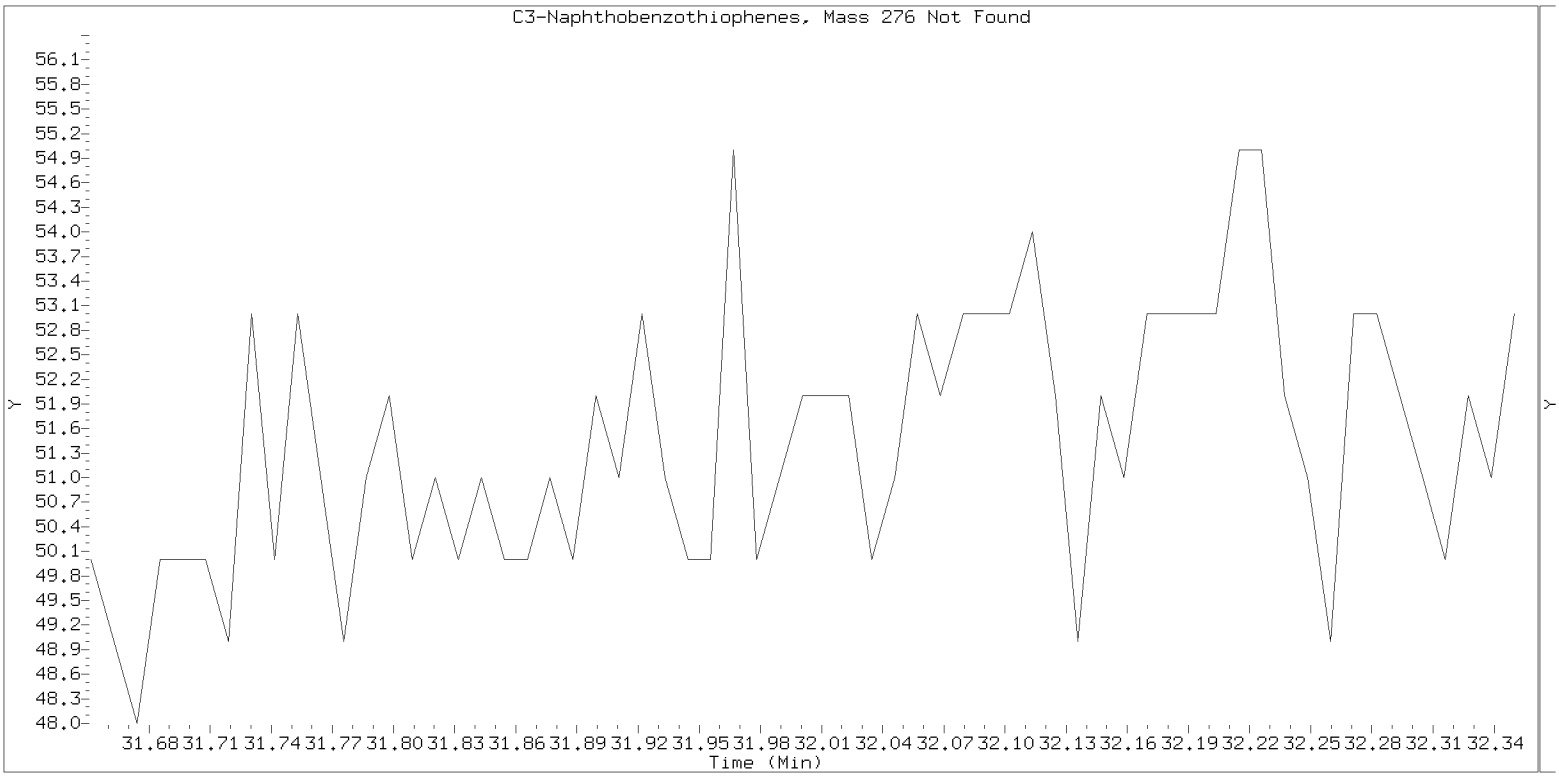

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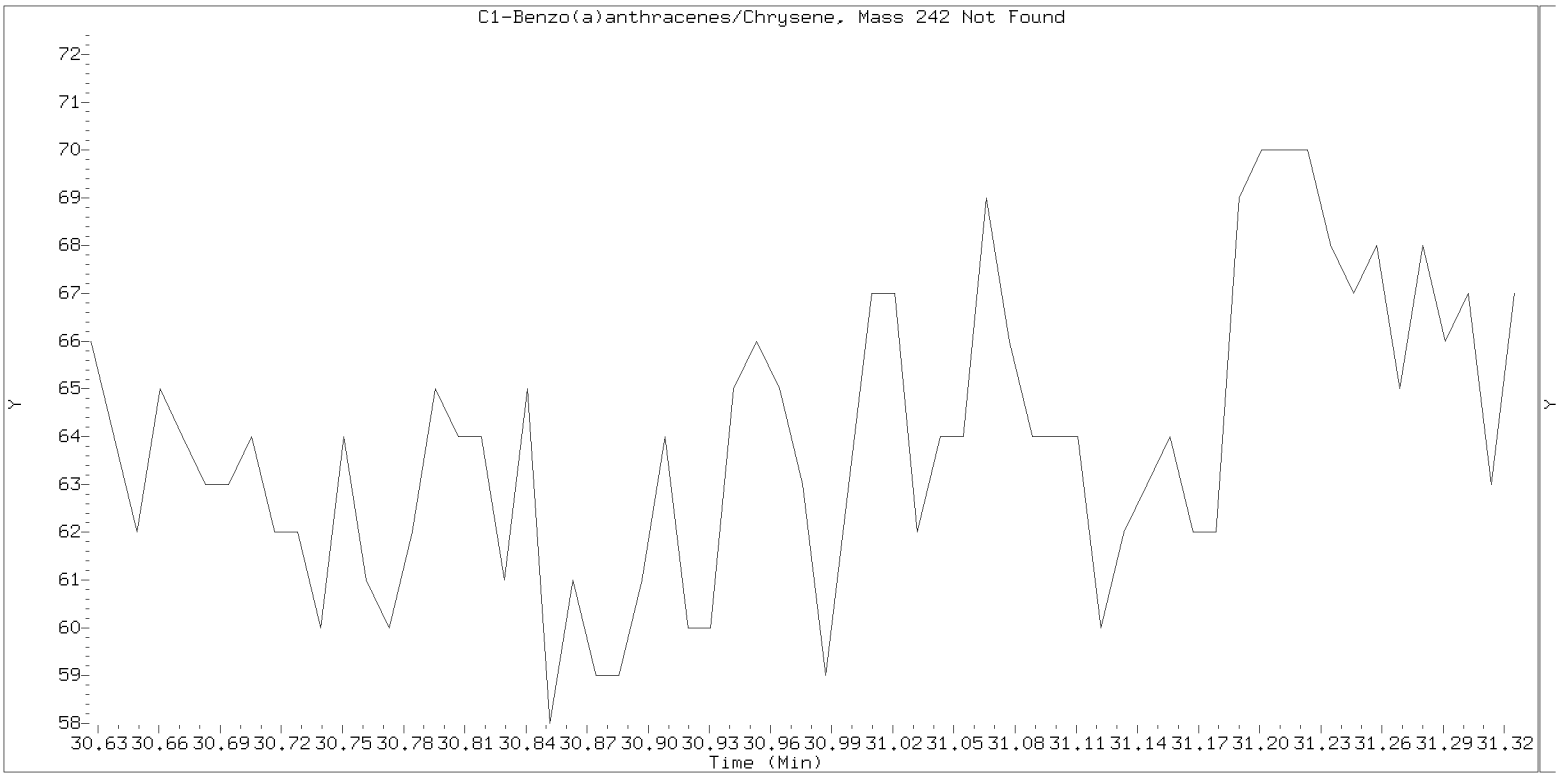

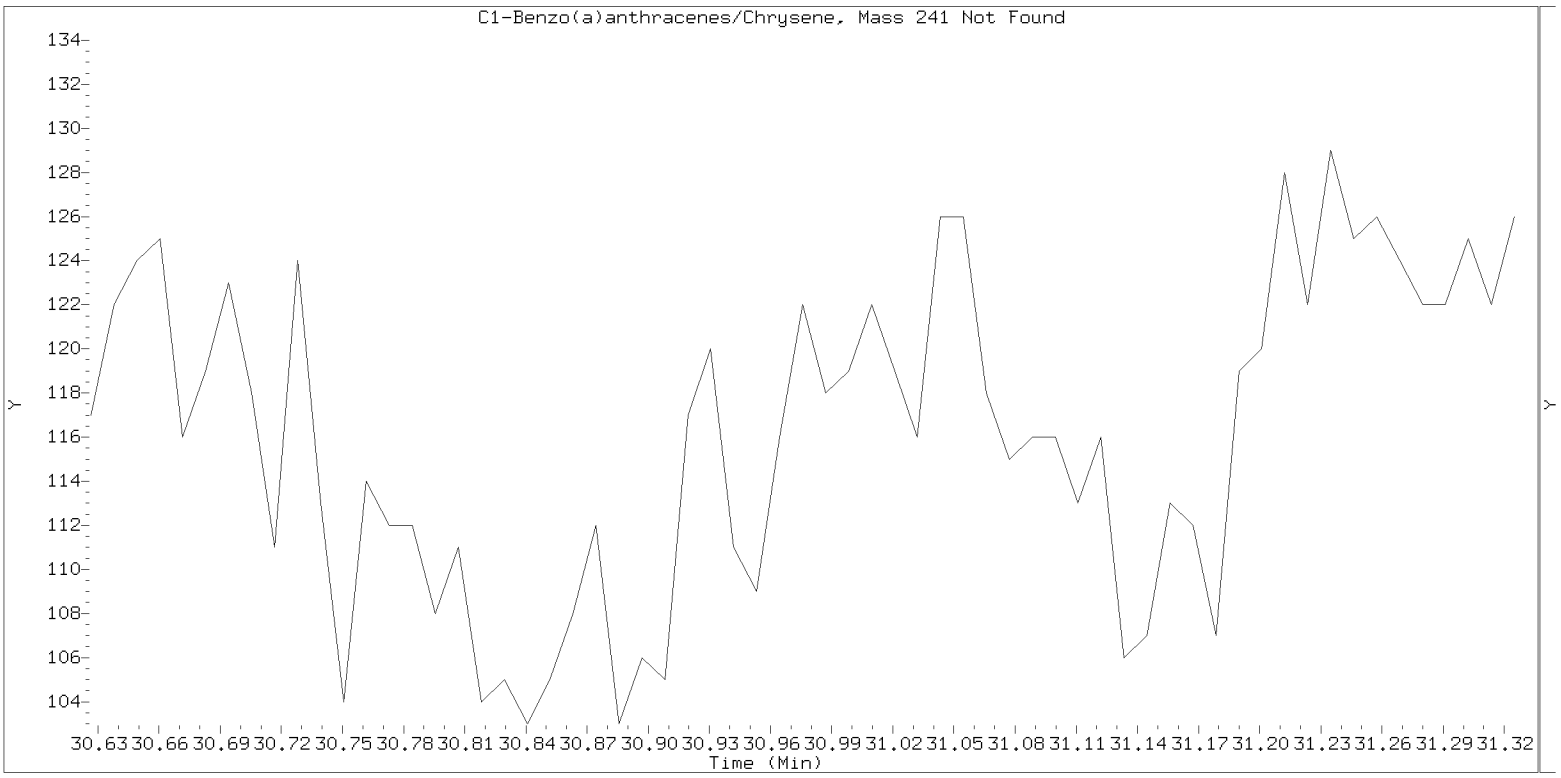

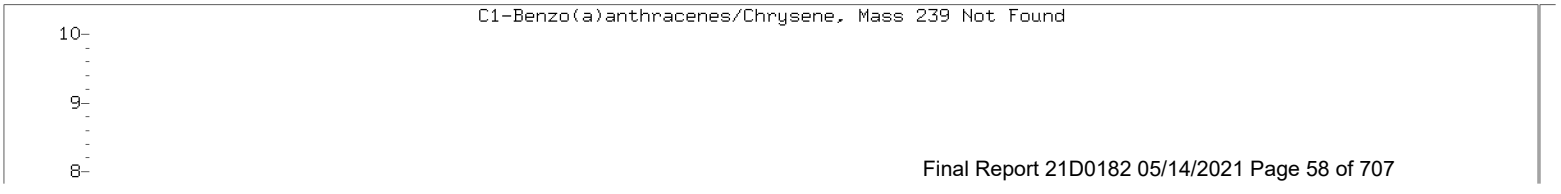

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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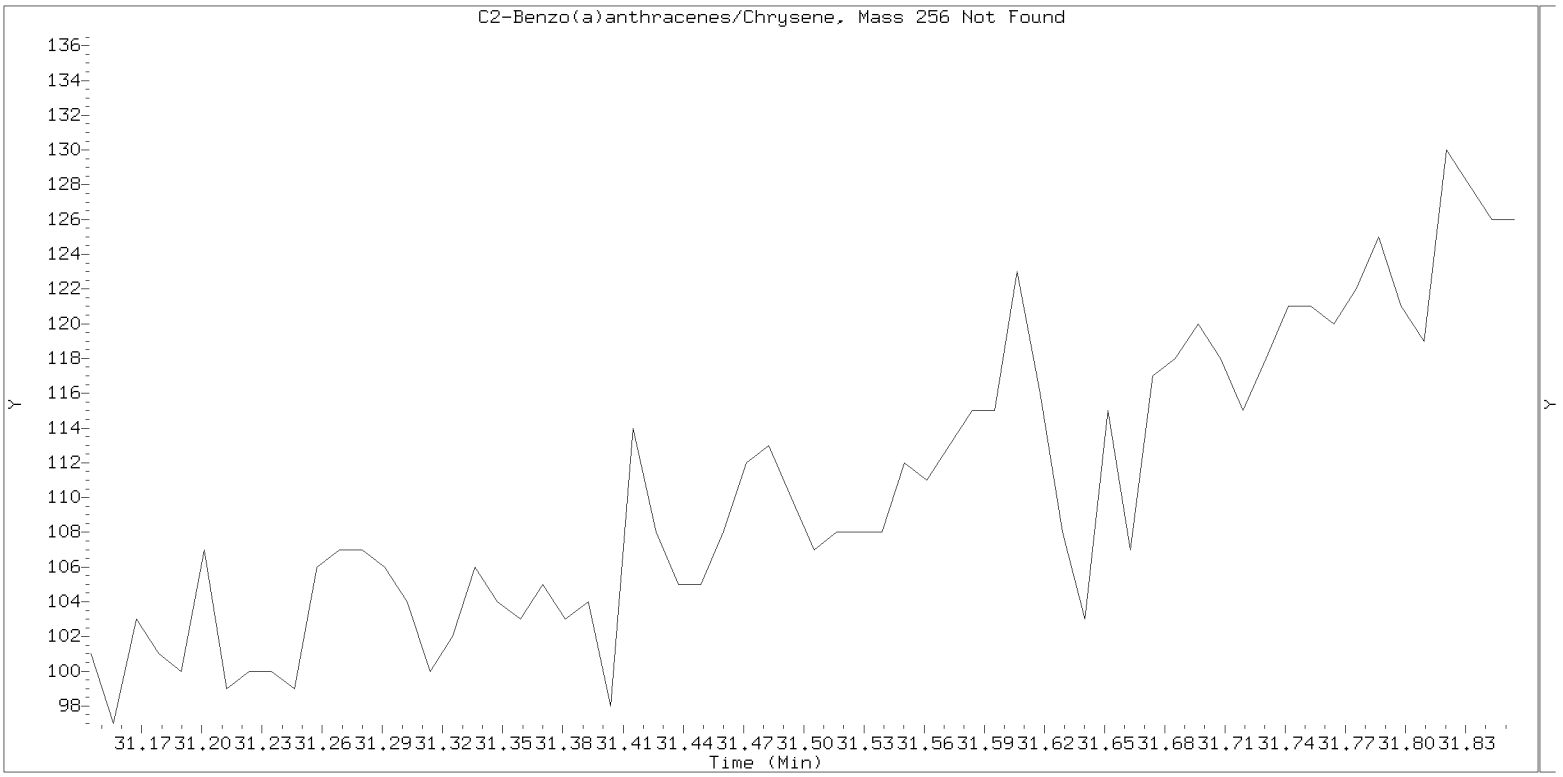
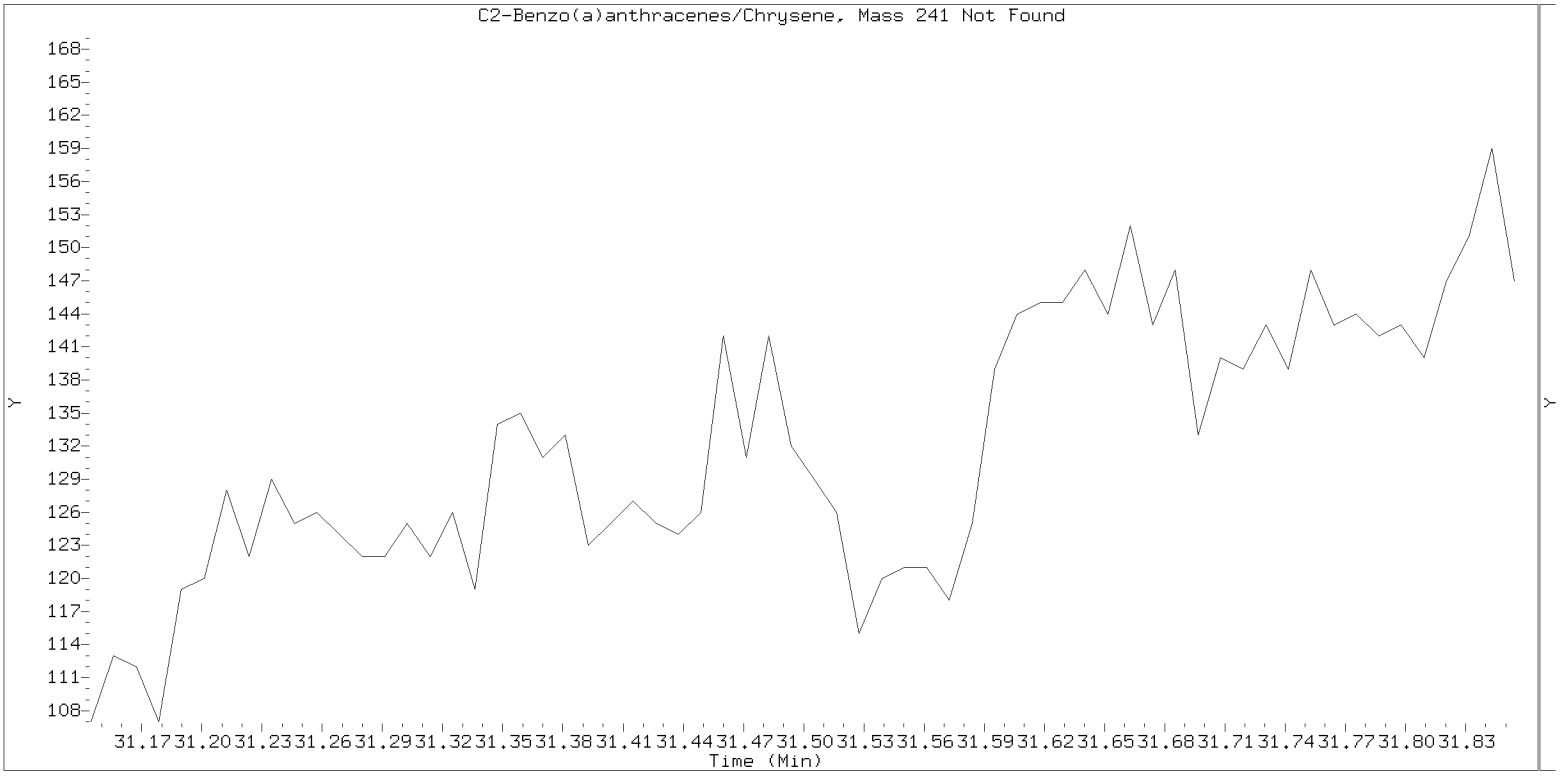
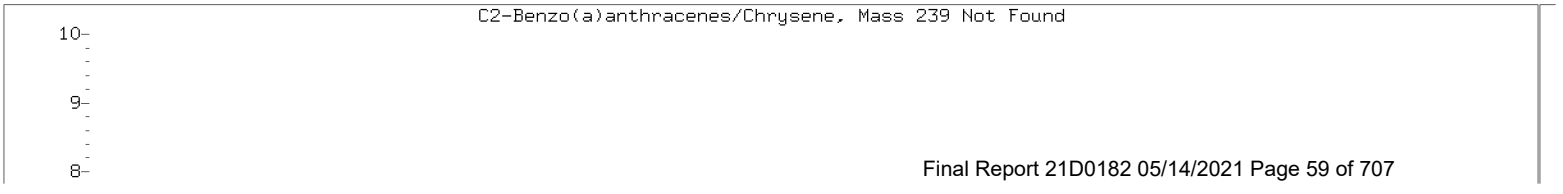
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 11:34







SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

Lab ID: 21D0182-01
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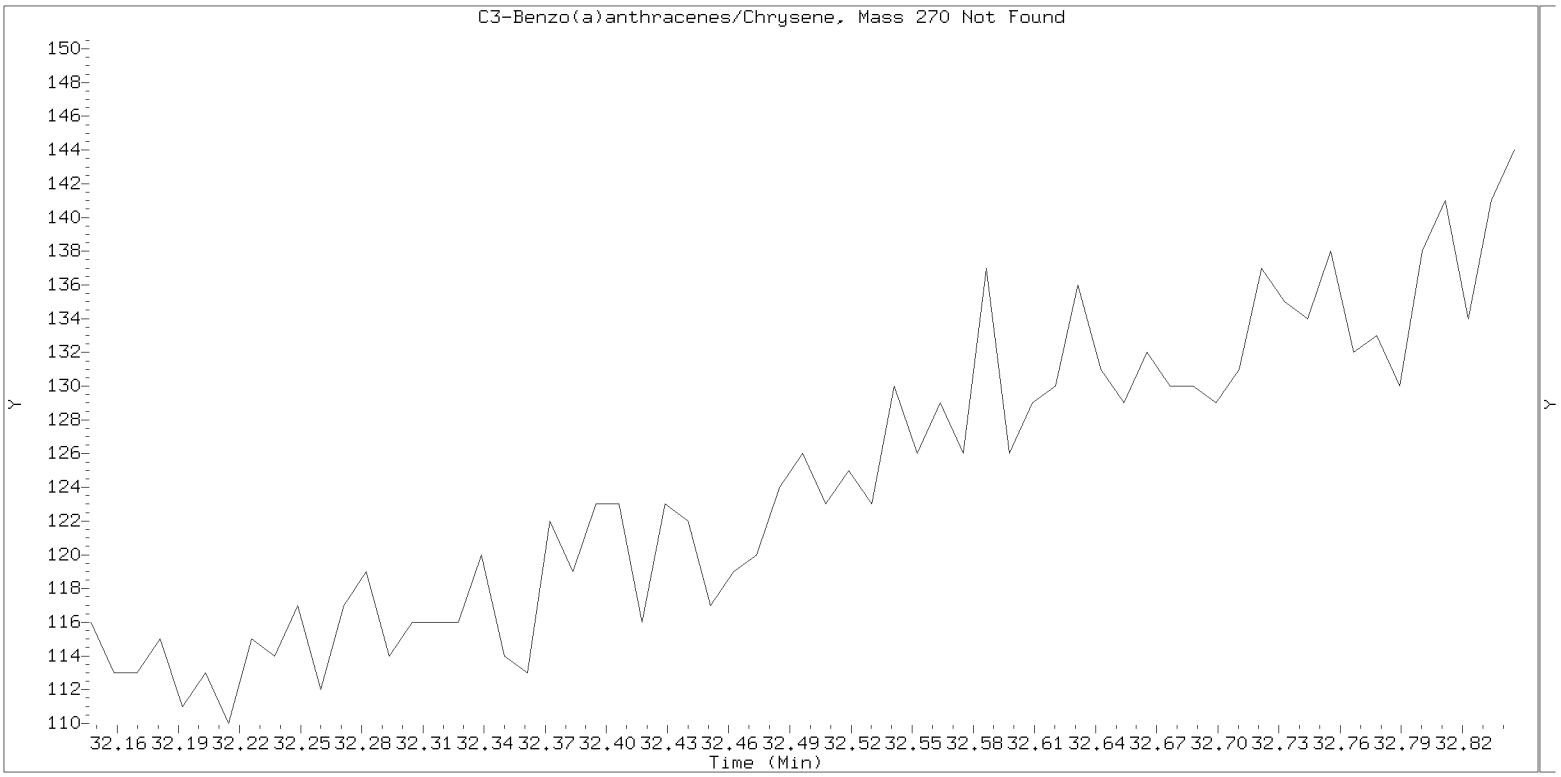

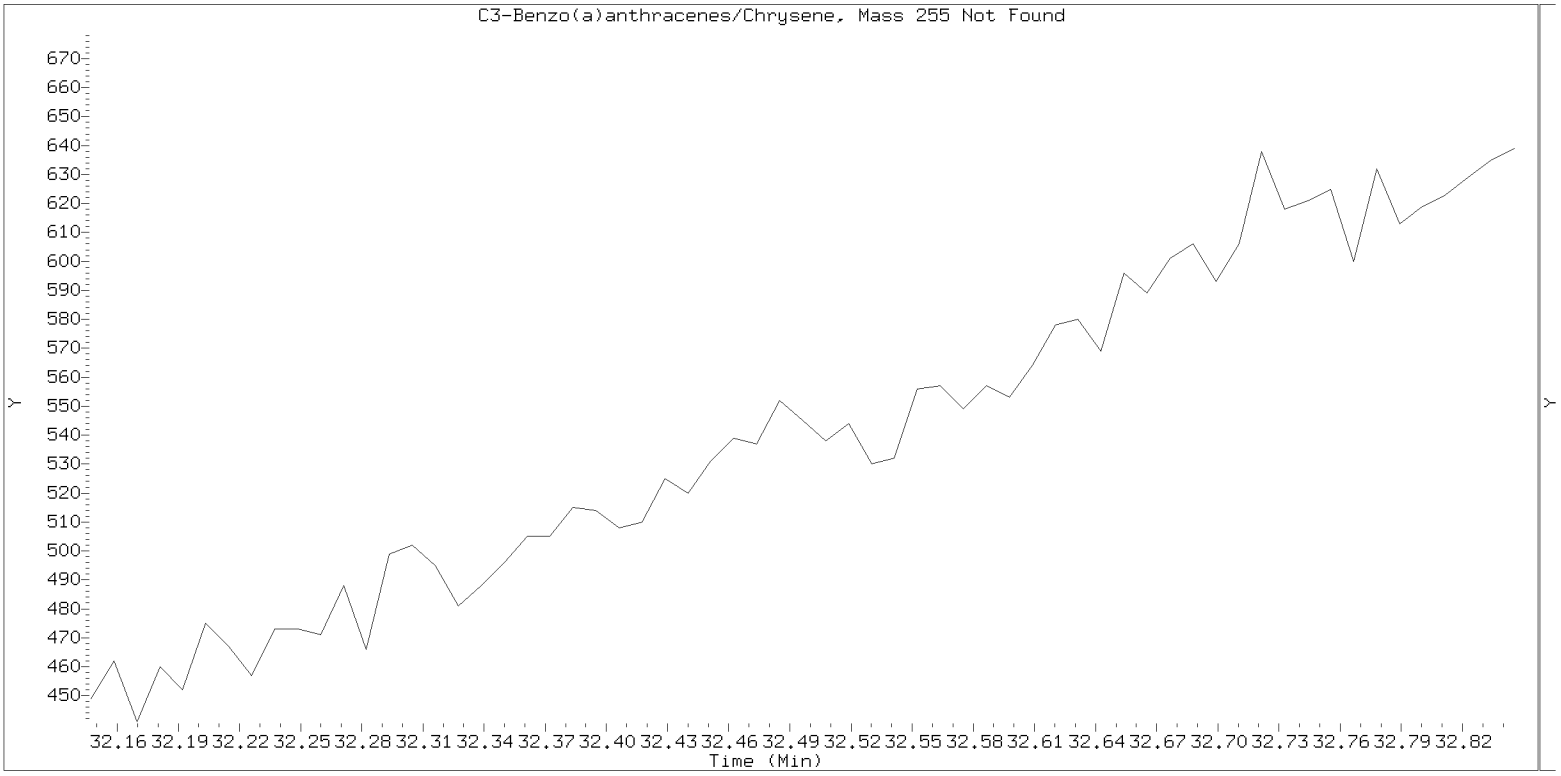

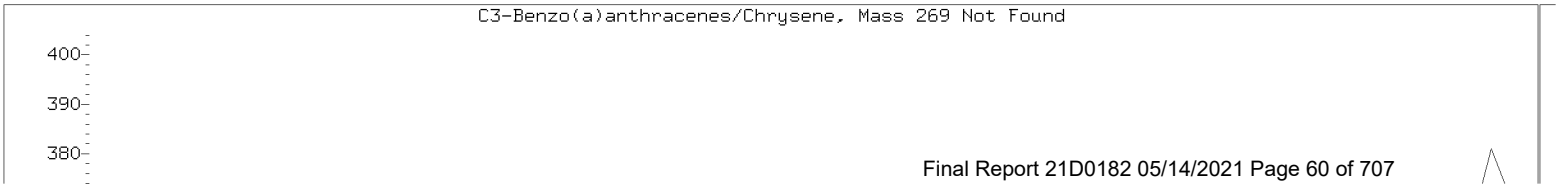

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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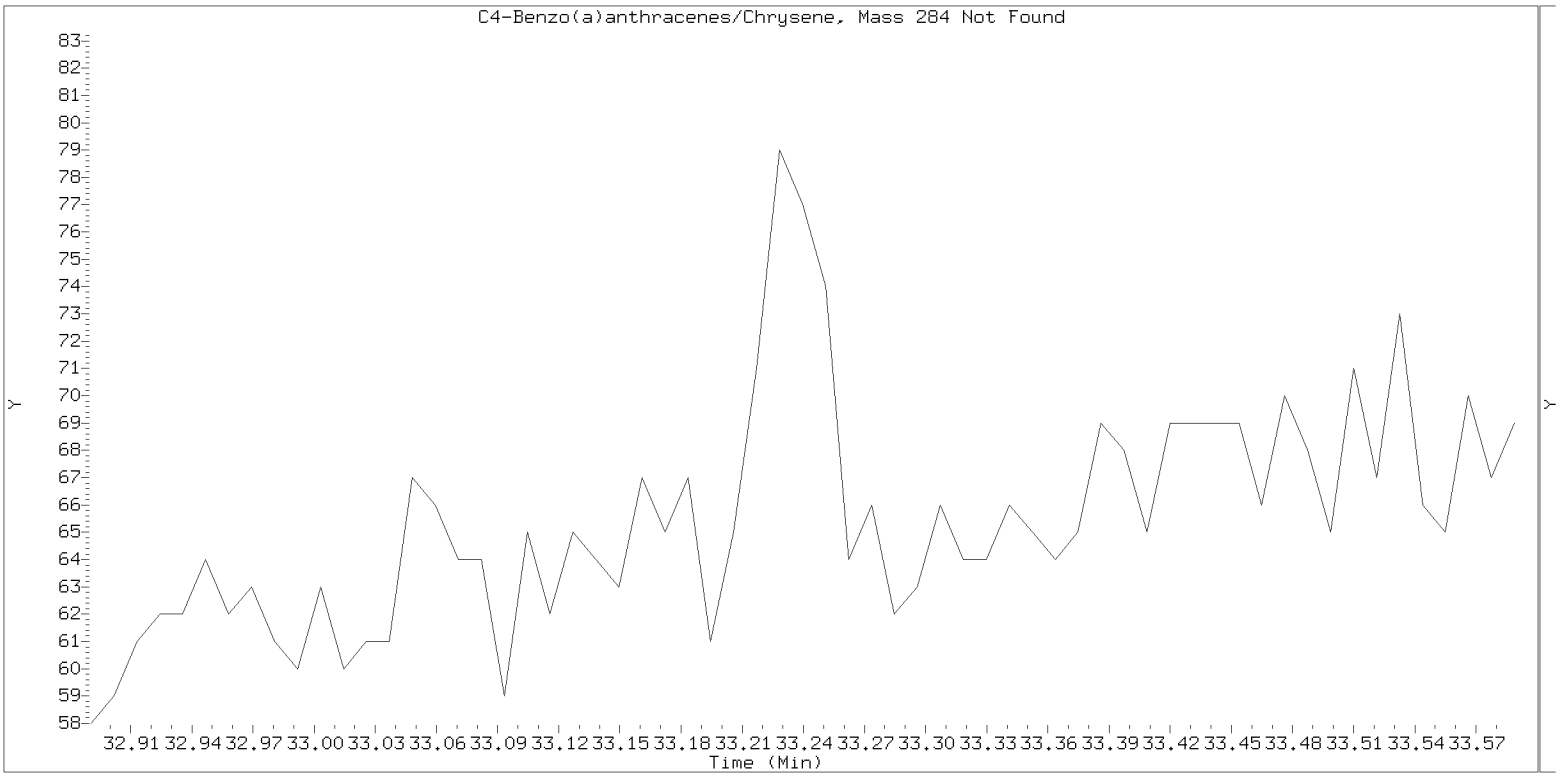

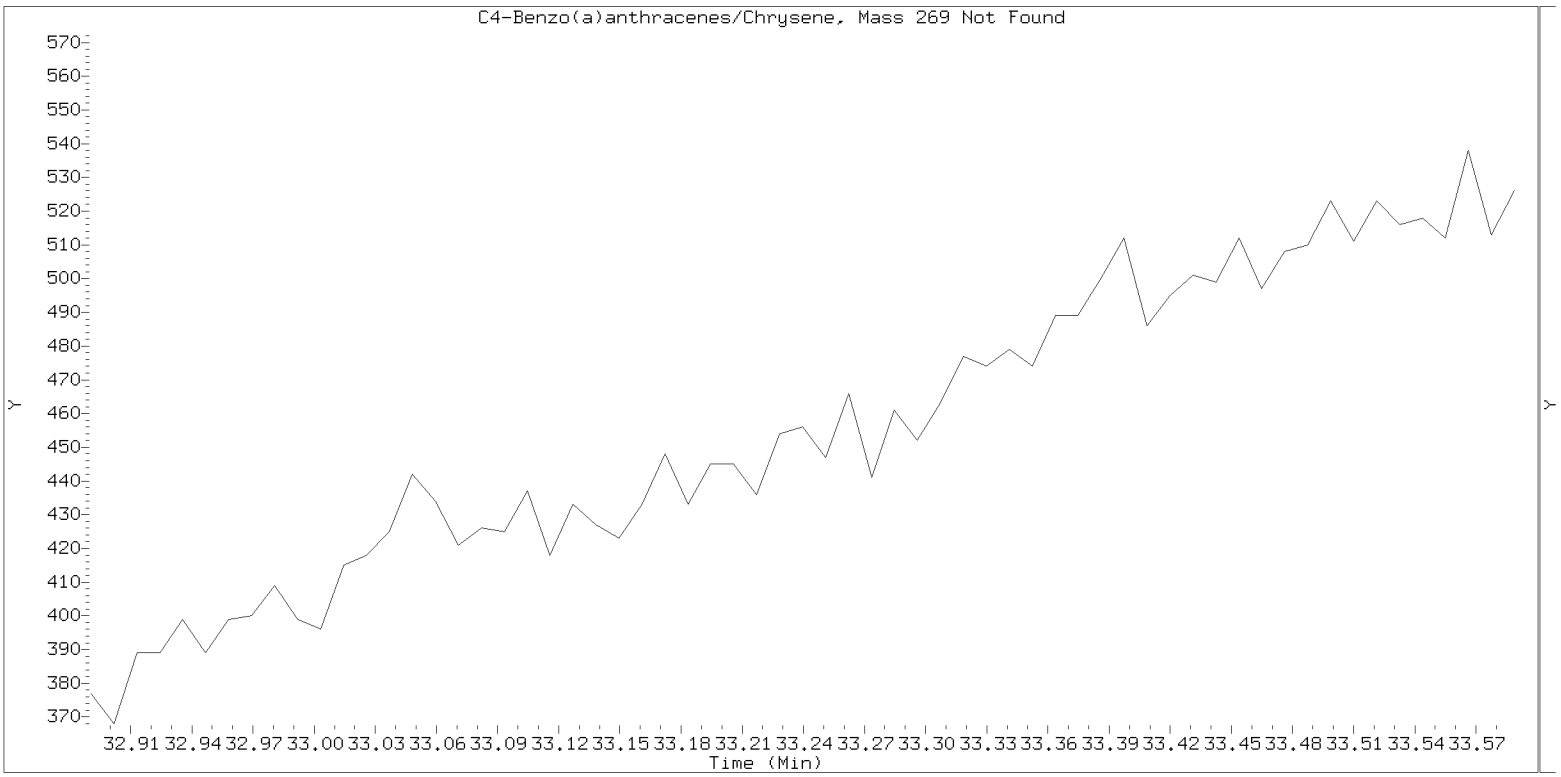

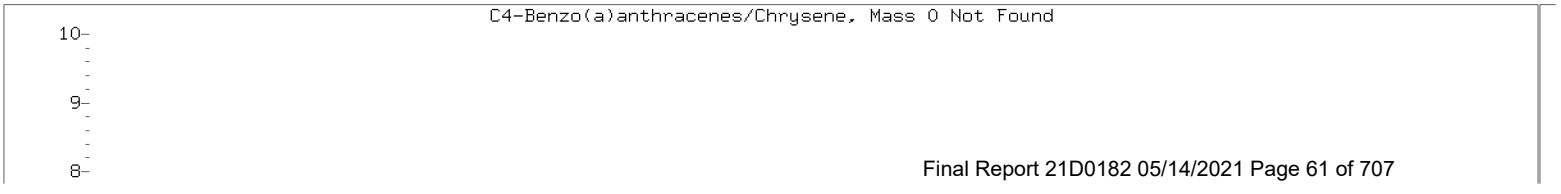

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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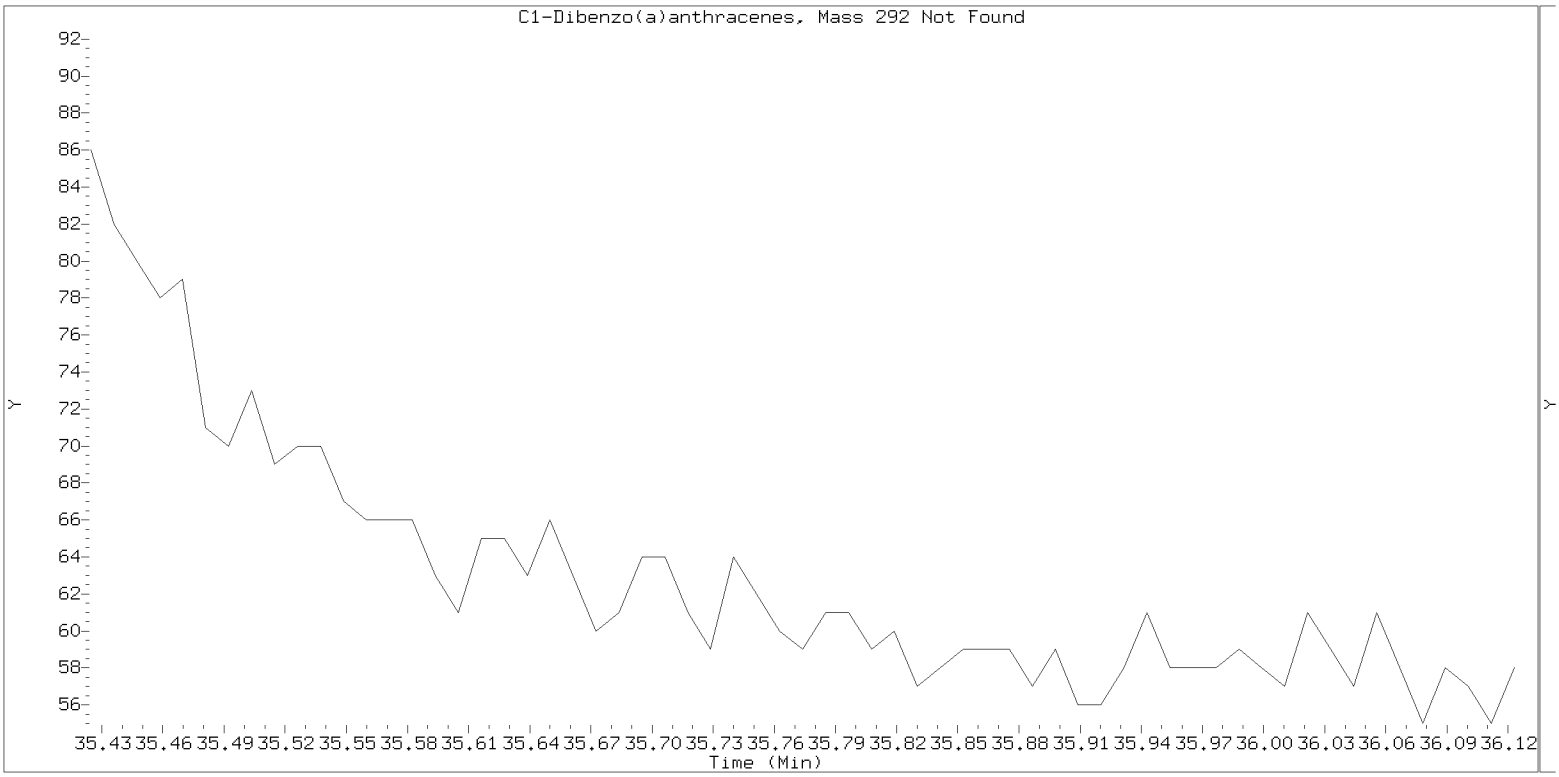

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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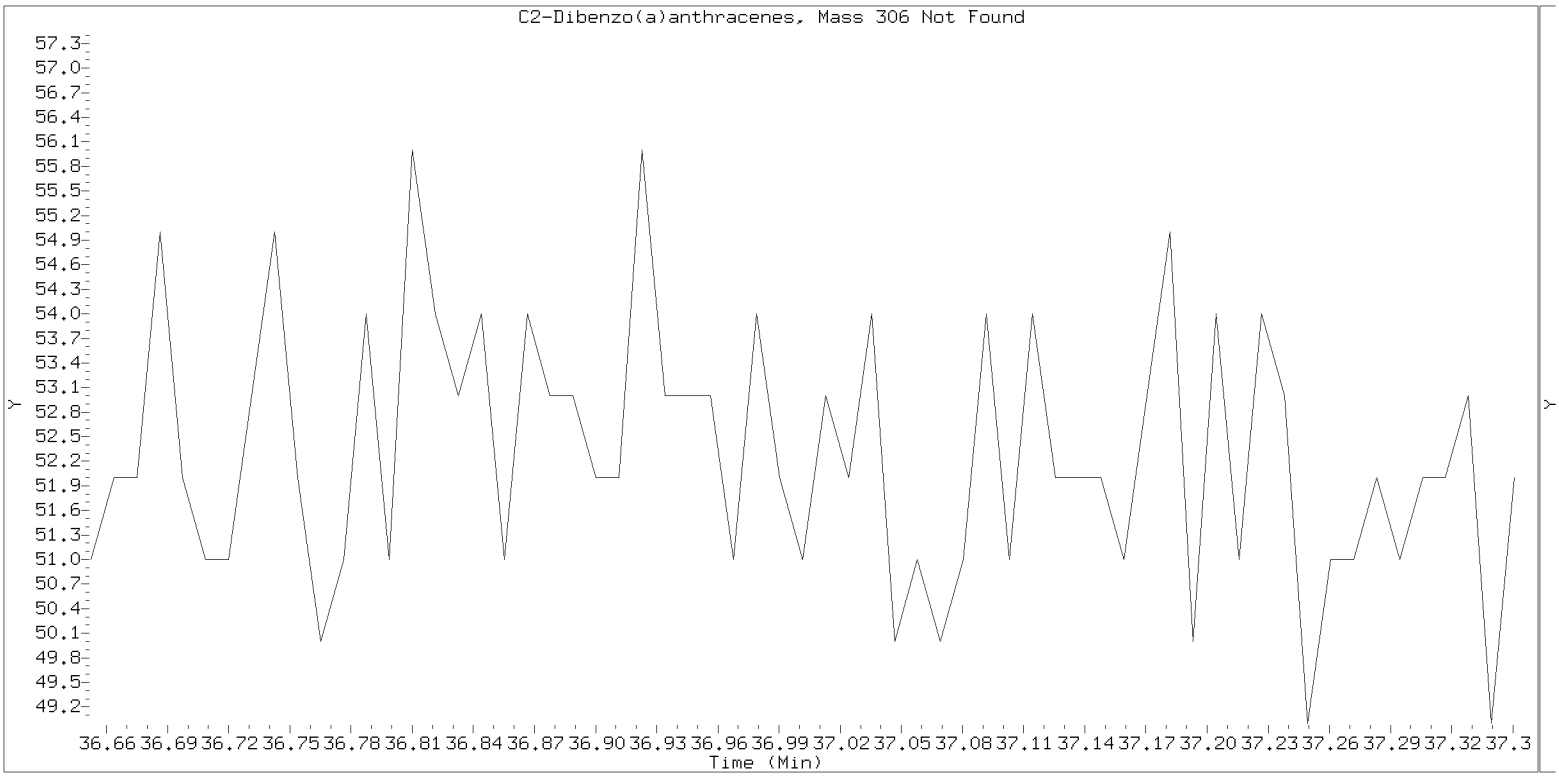

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043036S.D

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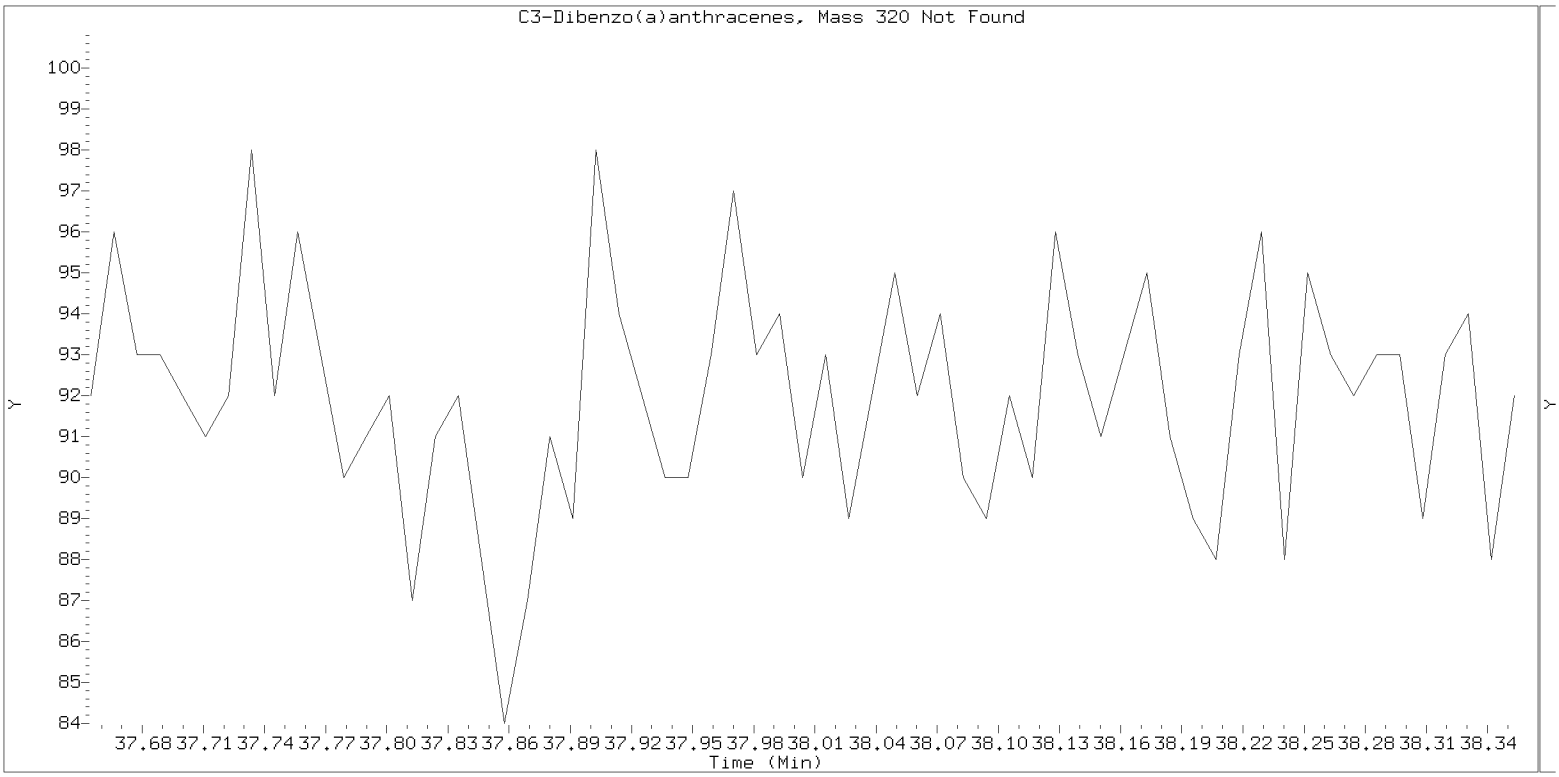


SG-RB-2104151020

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Parents

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-02 B	SDG:	21D0182
Sampled:	04/15/21 10:20	Prepared:	04/21/21 10:10	File ID:	NT1421043037.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 12:22
Batch:	BJD0501	Sequence:	SJD0345	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00001

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.042	J	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.010	J	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.015	J	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.100	U	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.100	U	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100

SG-RB-2104151020

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Parents

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-02 B	SDG:	21D0182
Sampled:	04/15/21 10:20	Prepared:	04/21/21 10:10	File ID:	NT1421043037.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 12:22
Batch:	BJD0501	Sequence:	SJD0345	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00001

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED:(ug/L)	(ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	1.97	65.6	30 - 160	
Acenaphthene-d10	3.0000	2.26	75.4	30 - 160	
Phenanthrene-d10	3.0000	2.21	73.7	30 - 160	
Chrysene-d12	3.0000	2.35	78.2	30 - 160	
Perylene-d12	3.0000	1.79	59.7	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043037.D

Date : 01-MAY-2021 12:22

Client ID:

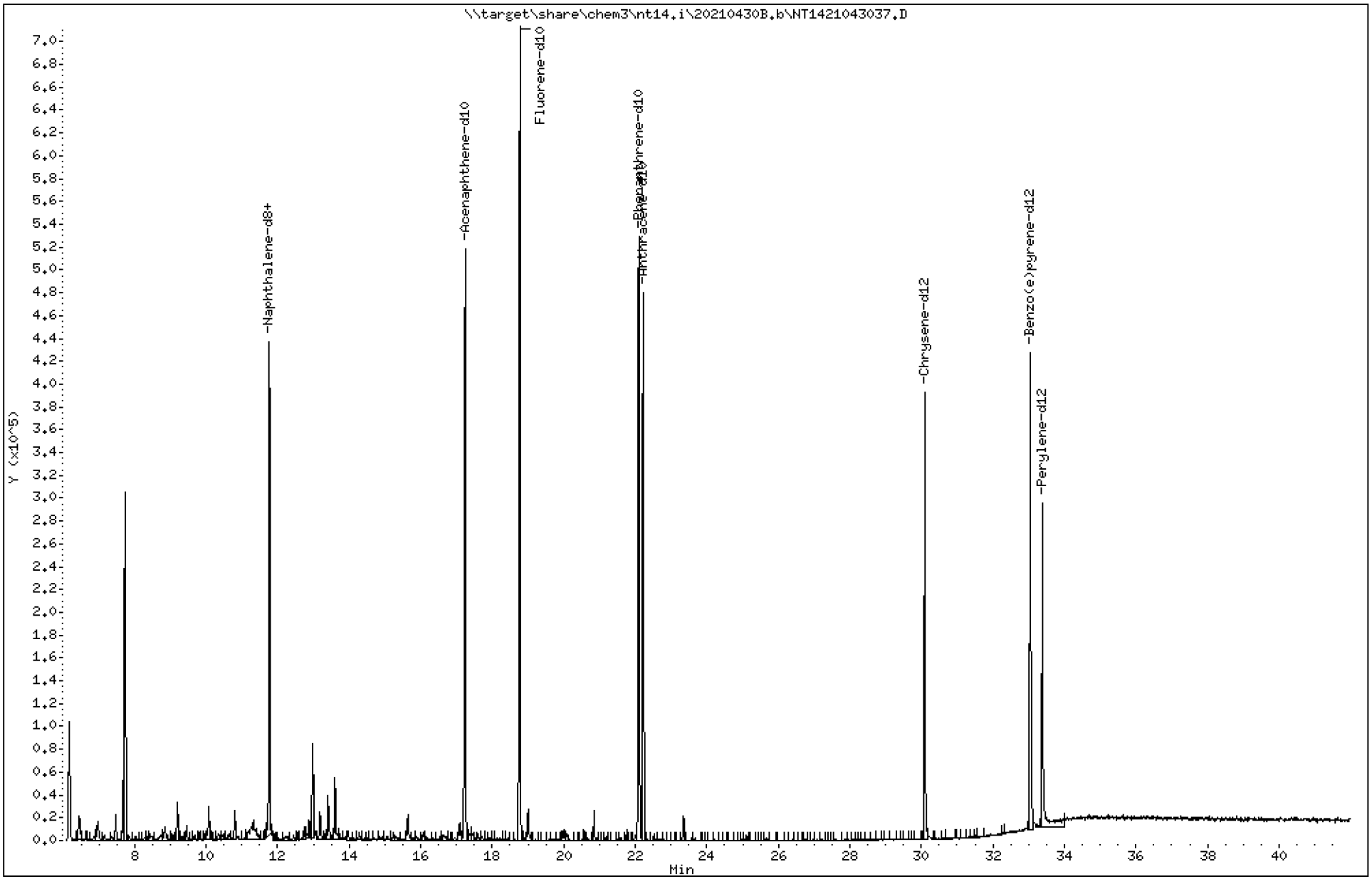
Instrument: nt14.i

Sample Info: 21D0182-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

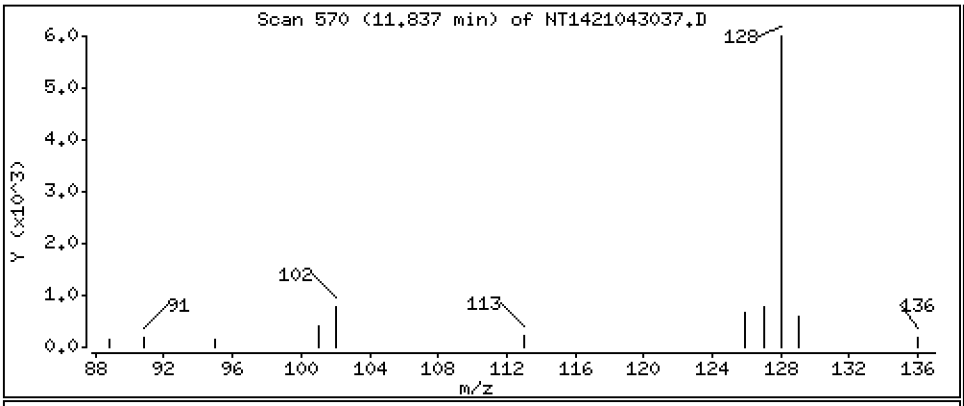
Operator: VTS

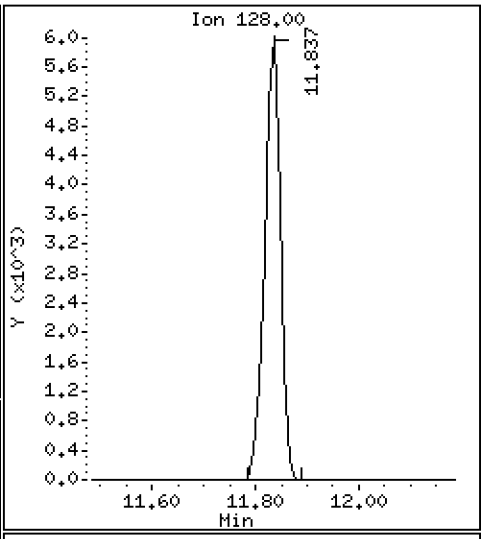
Column phase: Rxi-17Sil MS

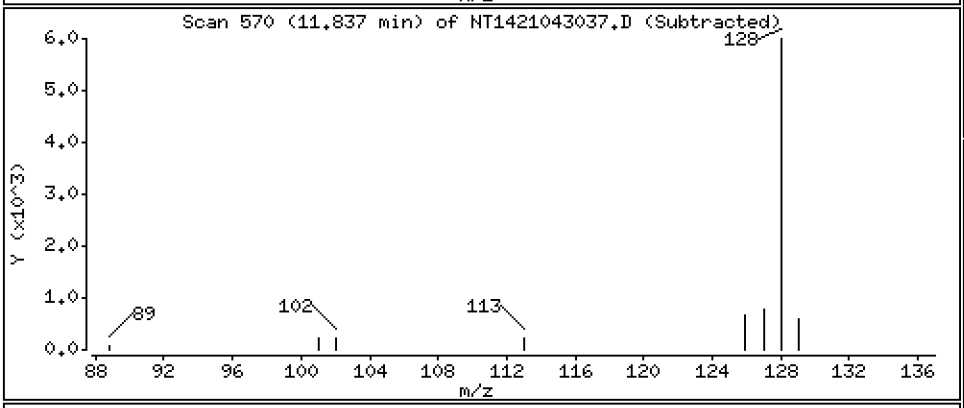
Column diameter: 0.25

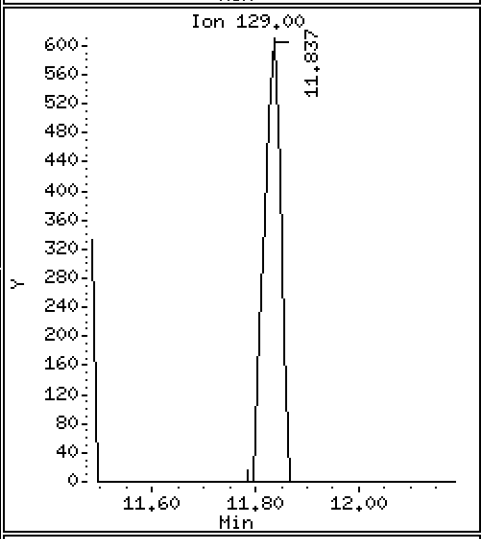
7 Naphthalene

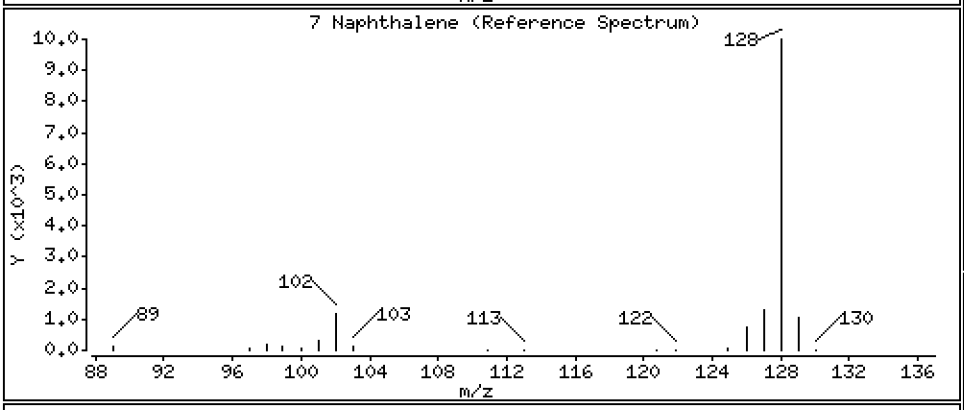
Concentration: 0.04187 ug/mL

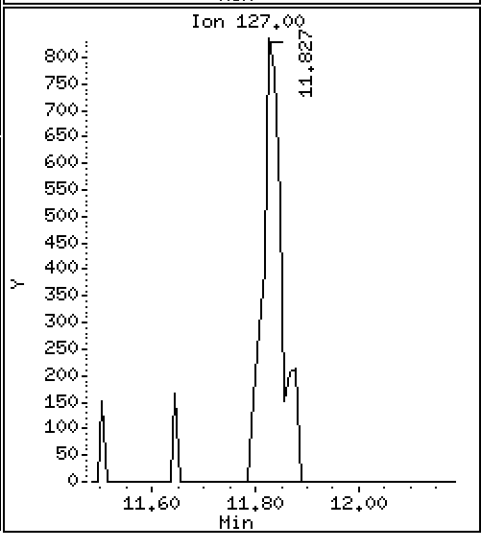


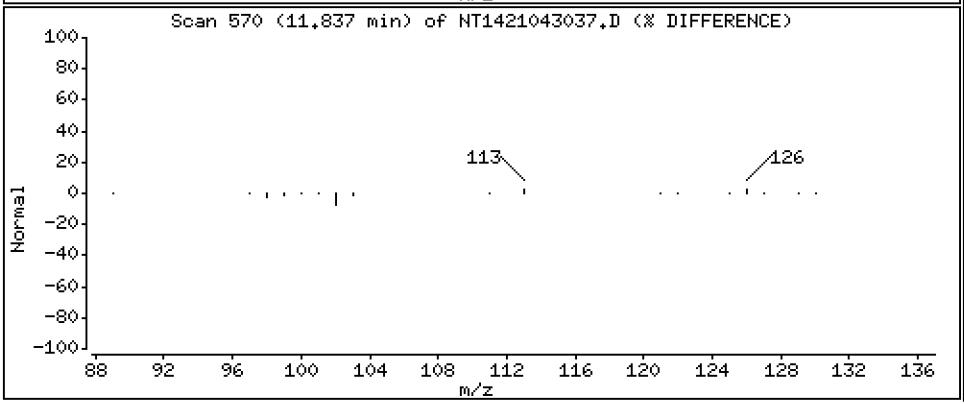












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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

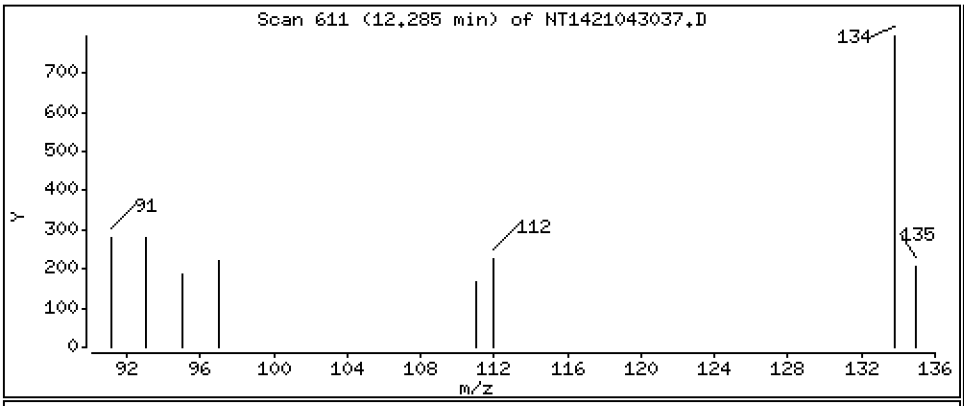
Operator: VTS

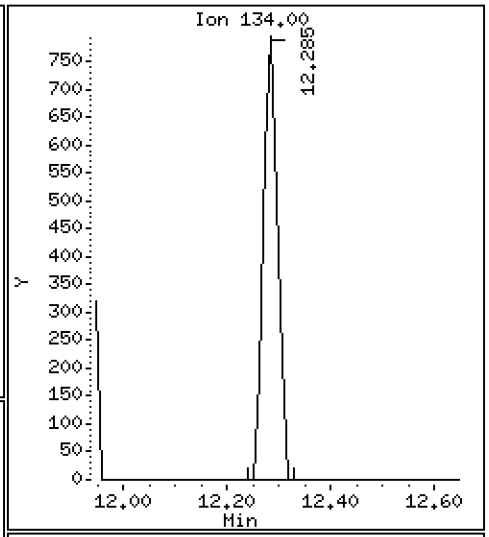
Column phase: Rxi-17Sil MS

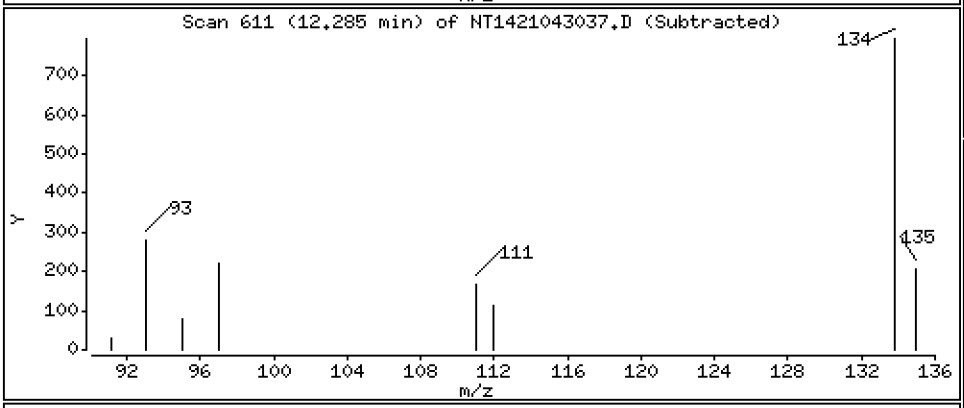
Column diameter: 0.25

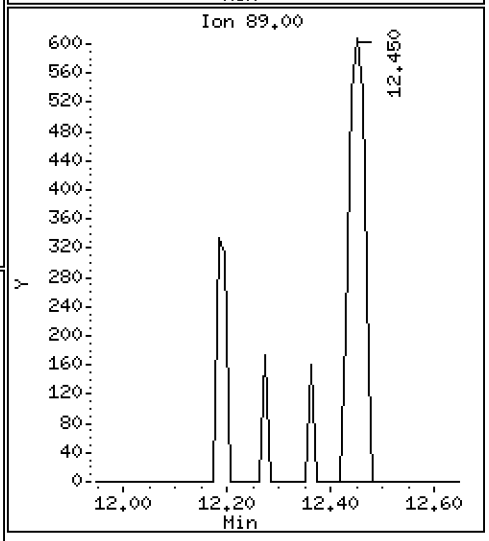
12 Benzo(b)thiophene

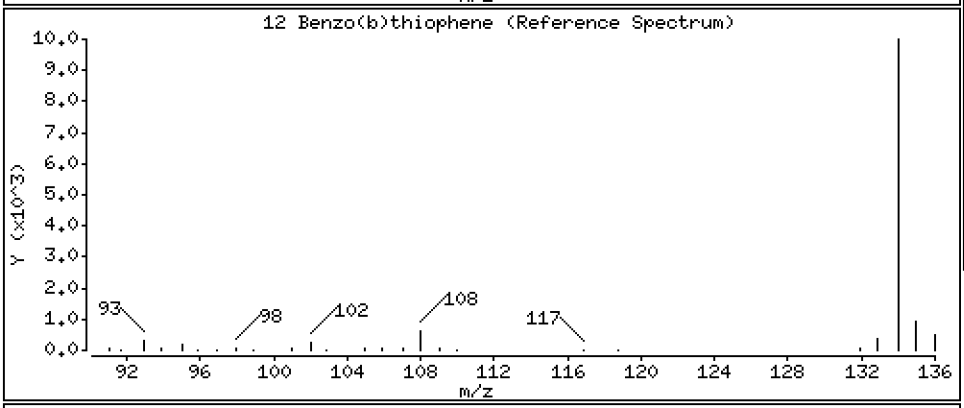
Concentration: 0.006133 ug/mL

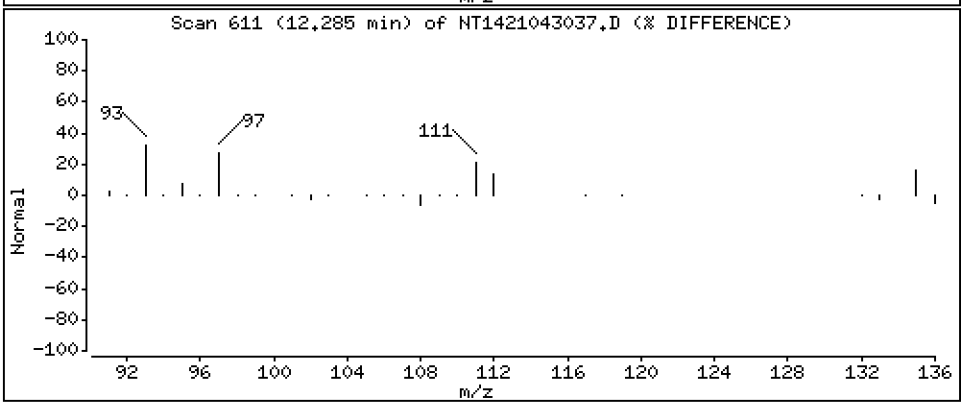












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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

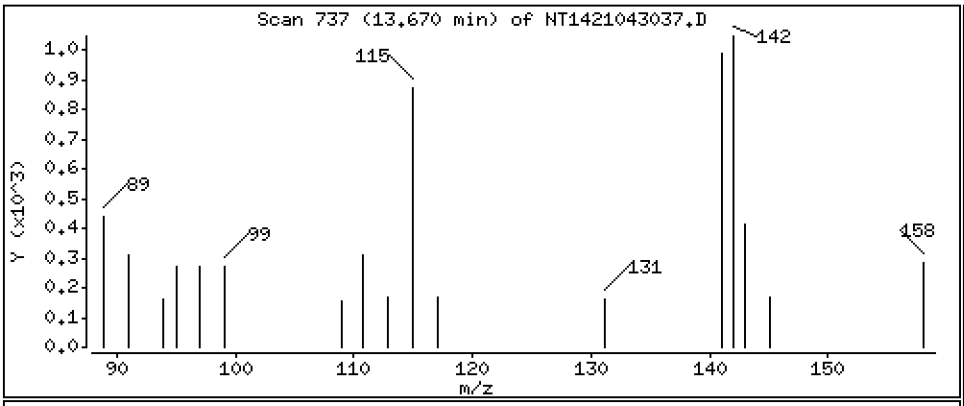
Operator: VTS

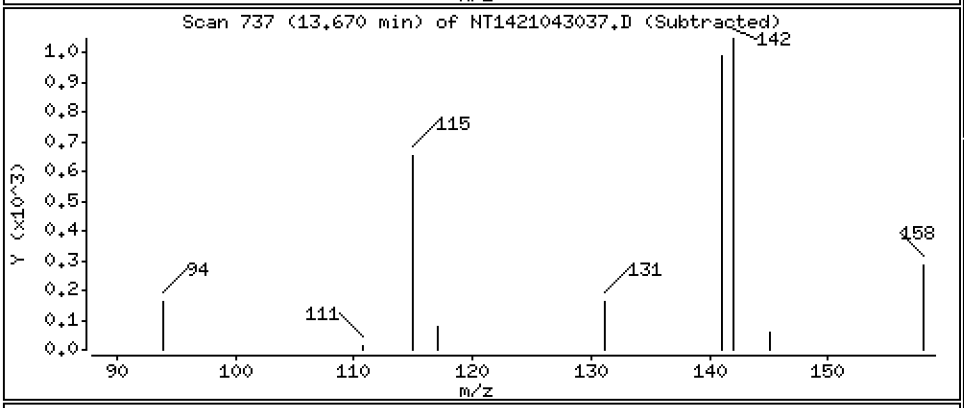
Column phase: Rxi-17Sil MS

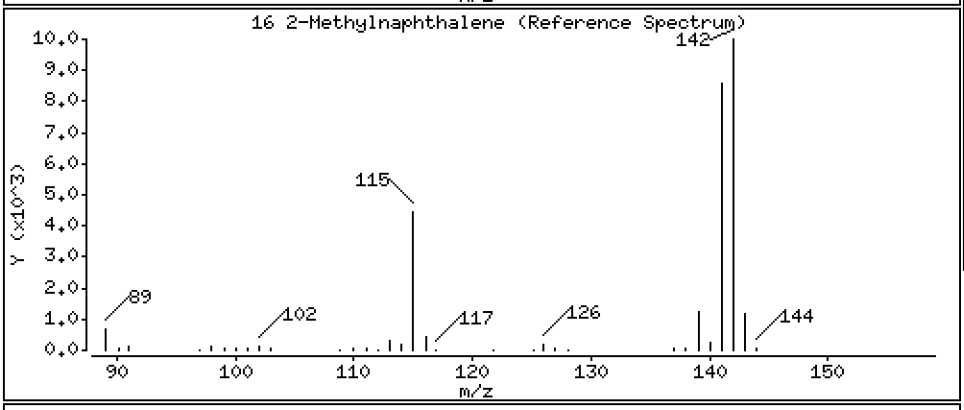
Column diameter: 0.25

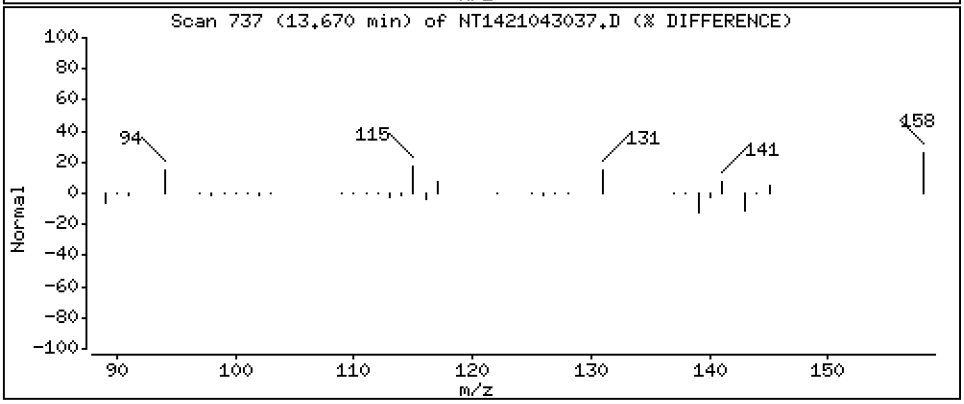
16 2-Methylnaphthalene

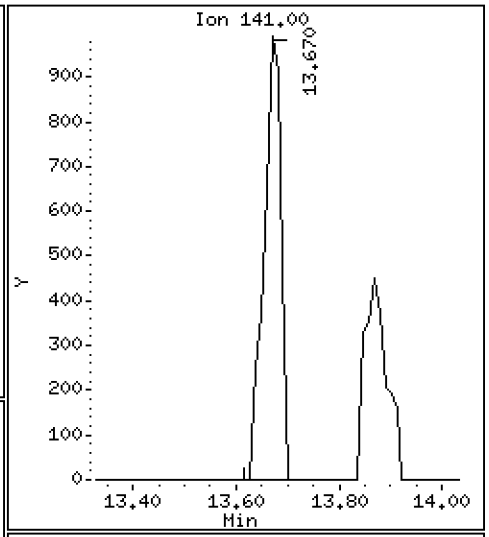
Concentration: 0.01451 ug/mL

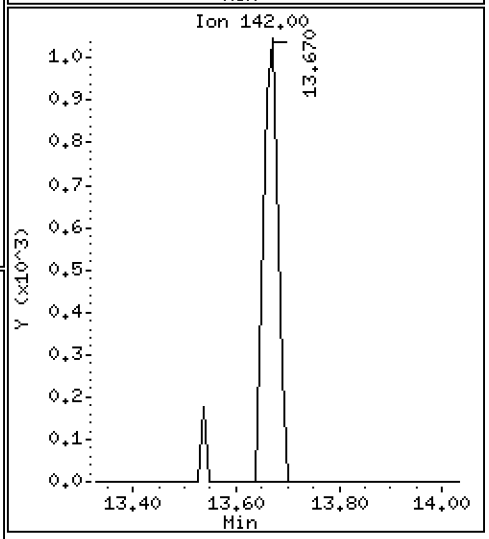












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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

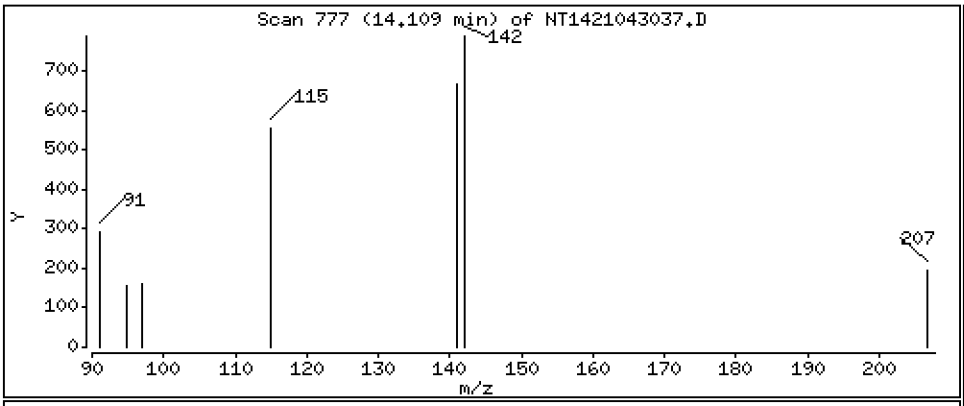
Operator: VTS

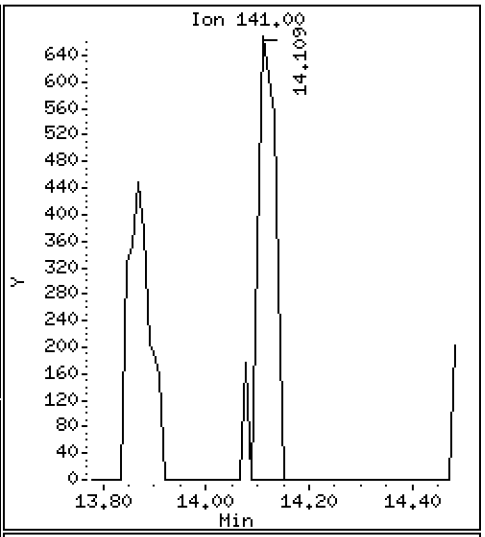
Column phase: Rxi-17Sil MS

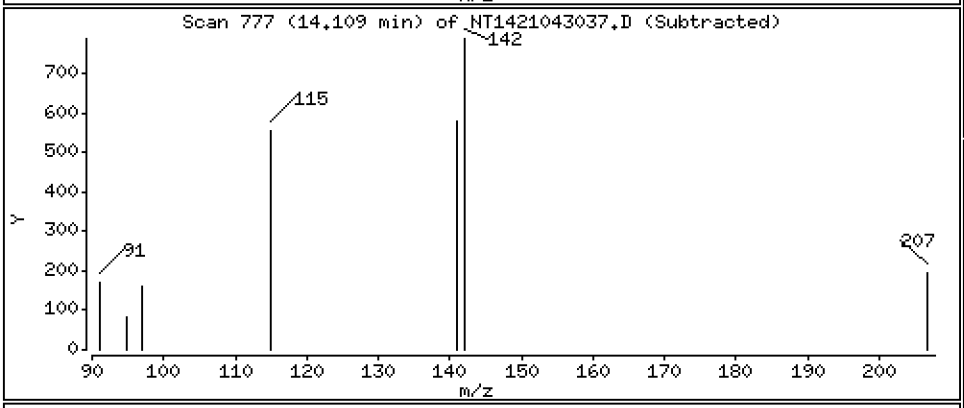
Column diameter: 0.25

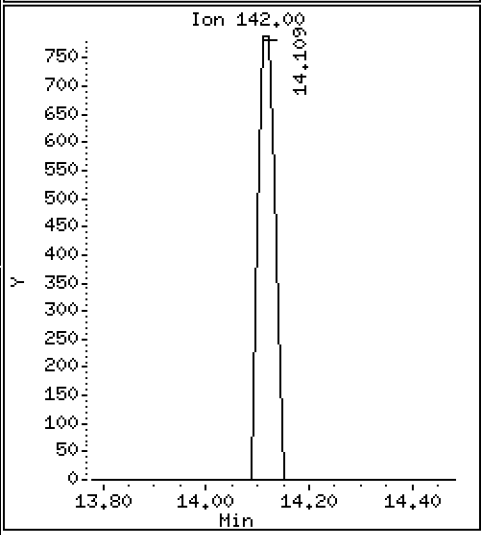
17 1-methylnaphthalene

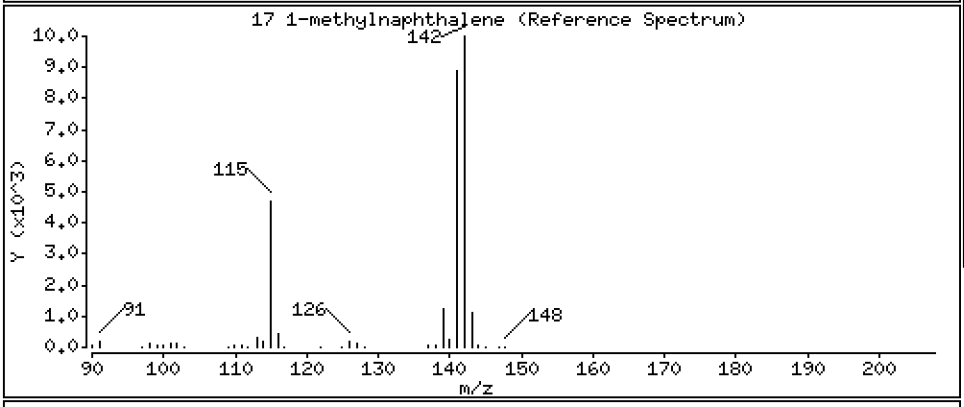
Concentration: 0.01042 ug/mL

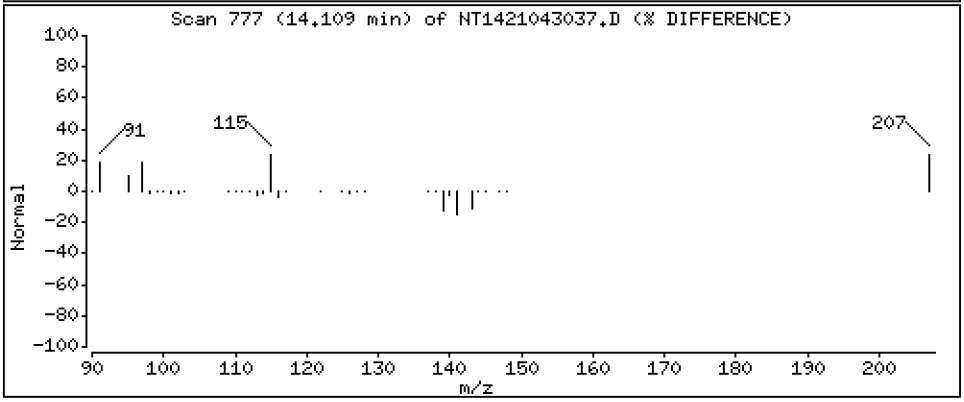












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043037.D
Lab Smp Id: 21D0182-02
Inj Date : 01-MAY-2021 12:22
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0182-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 07-May-2021 10:16 yev Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.766	11.776	(0.627)	599283	1.96843	1.968(R)
	7 Naphthalene	128	11.836	11.836	(0.631)	12967	0.04187	0.04187
	12 Benzo(b)thiophene	134	12.284	12.295	(0.654)	1511	0.00613	0.006133
	16 2-Methylnaphthalene	141	13.669	13.680	(0.728)	2398	0.01451	0.01451
	17 1-methylnaphthalene	141	14.109	14.131	(0.752)	1631	0.01042	0.01042
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	336327	2.26244	2.262(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.772	18.772	(1.000)	527542	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.104	22.104	(0.995)	550263	2.21216	2.212(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.214	22.214	(1.000)	460304	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.095	30.095	(0.911)	357214	2.34611	2.346(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	419029	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	289850	1.79213	1.792(RM)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043037.D
Lab Smp Id: 21D0182-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	527542	0.15
250 Anthracene-d10	481292	240646	962584	460304	-4.36
251 Benzo(e)pyrene-d1	486825	243413	973650	419029	-13.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043037.D

Lab ID: 21D0182-02
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 12:22

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

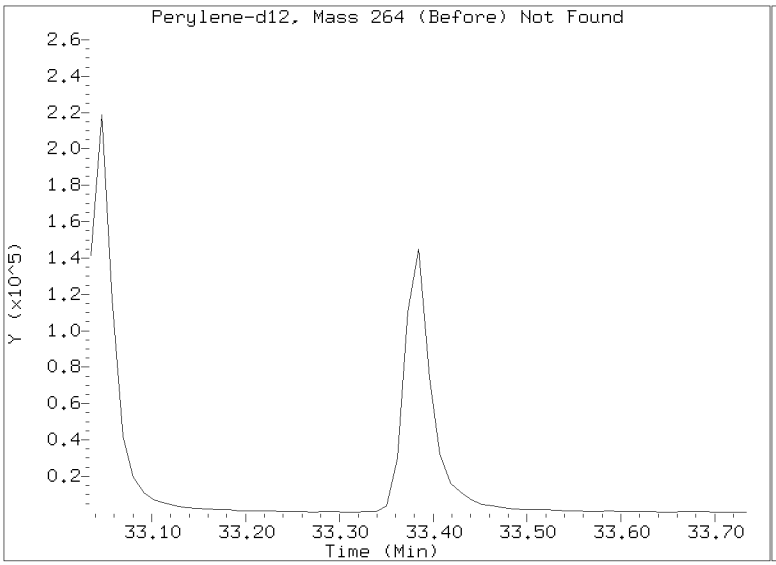
RRT check based on Ccal File: NT1421043024ICV.D

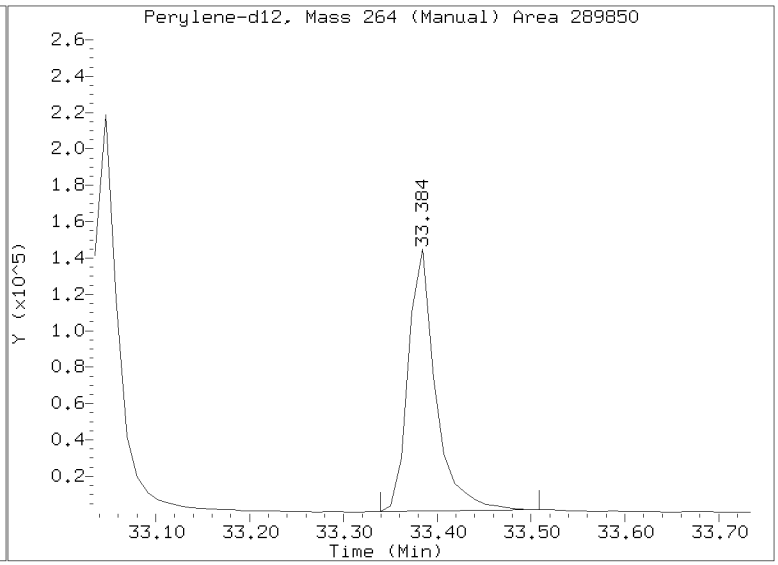
On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430B.b/NT1421043037.D
Injection Date: 01-MAY-2021 12:22
Lab ID:21D0182-02 Client ID:
Report Date: 05/07/2021 10:17





SG-RB-2104151020

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270E-SIM
Alkyl PAH Ranges

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-02 B	SDG:	21D0182
Sampled:	04/15/21 10:20	Prepared:	04/21/21 10:10	File ID:	NT1421043037S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 12:22
Batch:	BJD0501	Sequence:	SJD0347	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.016	J		0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.015	J		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.056			0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020

SG-RB-2104151020

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270E-SIM

Alkyl PAH Ranges

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Gasco Siltronic - US Moorings				
Matrix:	Water	Laboratory ID:	21D0182-02 B	SDG:	21D0182
Sampled:	04/15/21 10:20	Prepared:	04/21/21 10:10	File ID:	NT1421043037S.D
% Solids:		Preparation:	EPA 3520C (Liq Liq)	Analyzed:	05/01/21 12:22
Batch:	BJD0501	Sequence:	SJD0347	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT14	Column:	ZB-5MS	Calibration:	EE00019

CAS NO.	COMPOUND	DILUTION	(ug/L)	Q	DL	RL
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430375.D

Page 1

Date : 01-MAY-2021 12:22

Client ID:

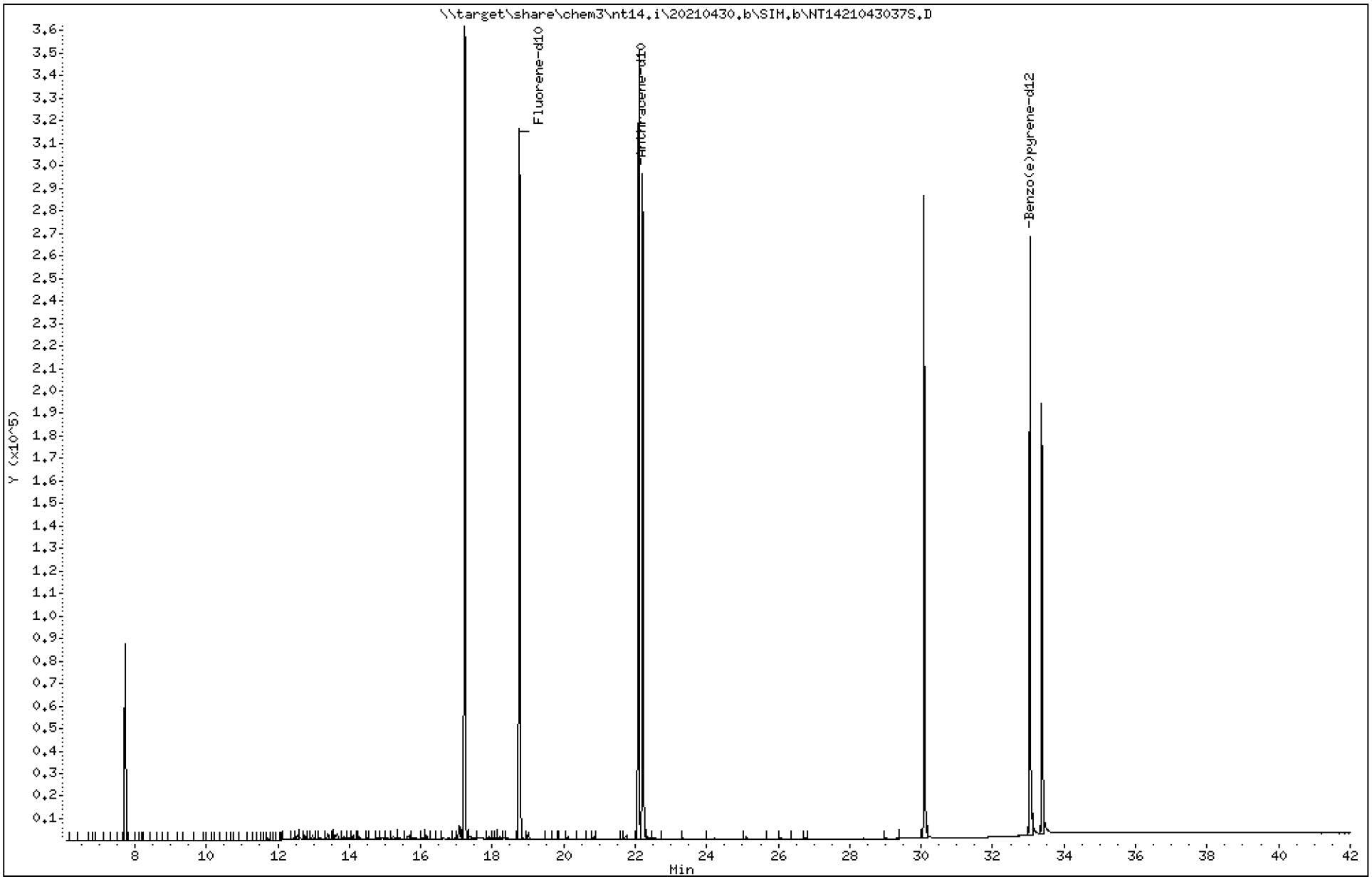
Instrument: nt14.i

Sample Info: 21D0182-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

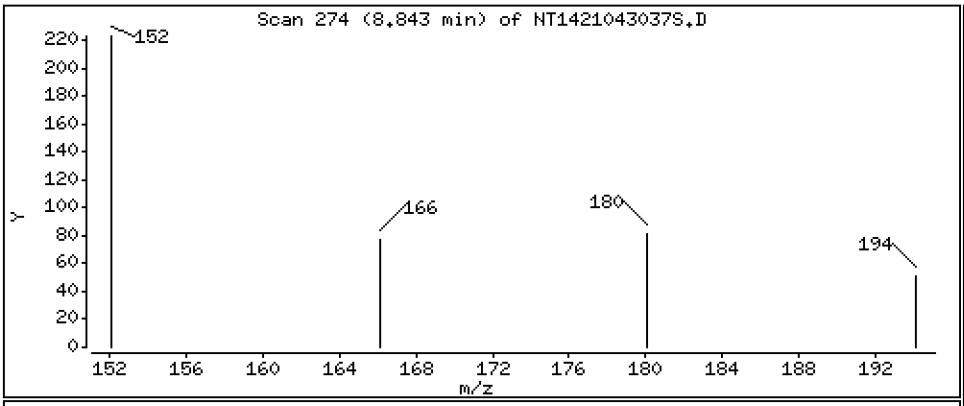
Operator: VTS

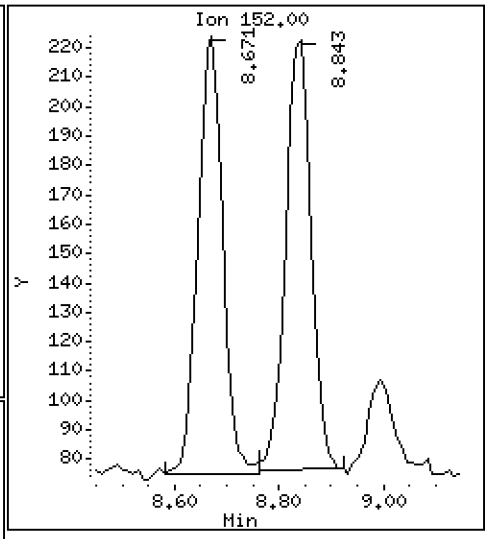
Column phase: Rxi-17Sil MS

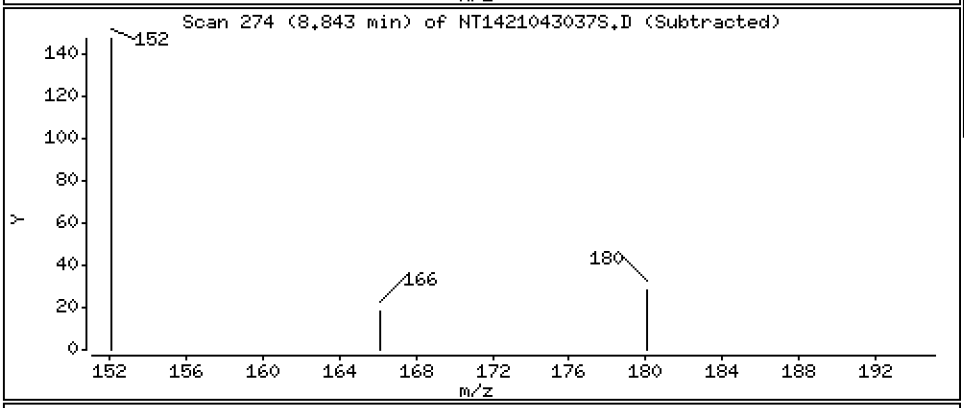
Column diameter: 0.25

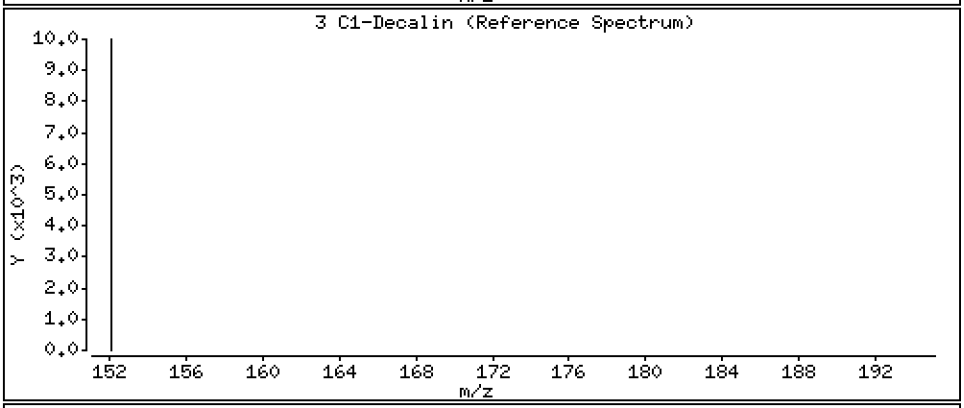
3 C1-Decalin

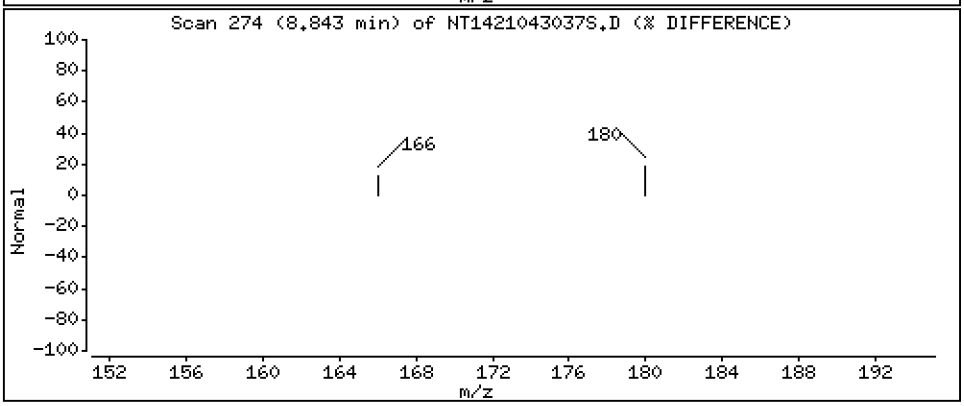
Concentration: 0.01566 ug/mL











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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

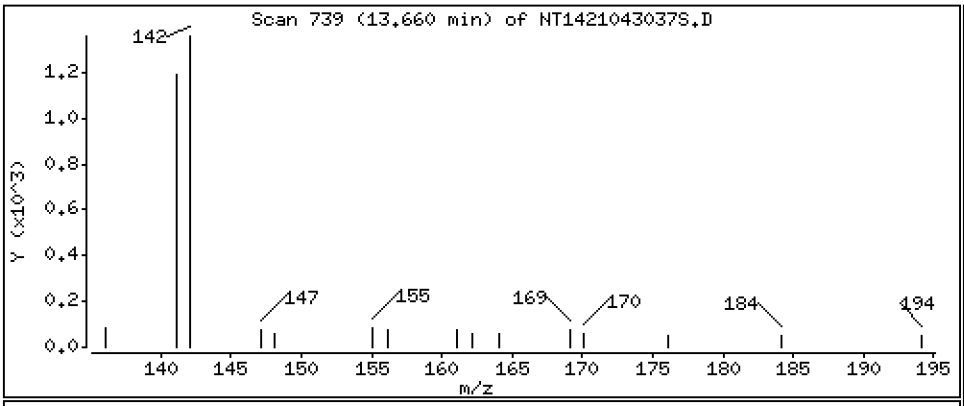
Operator: VTS

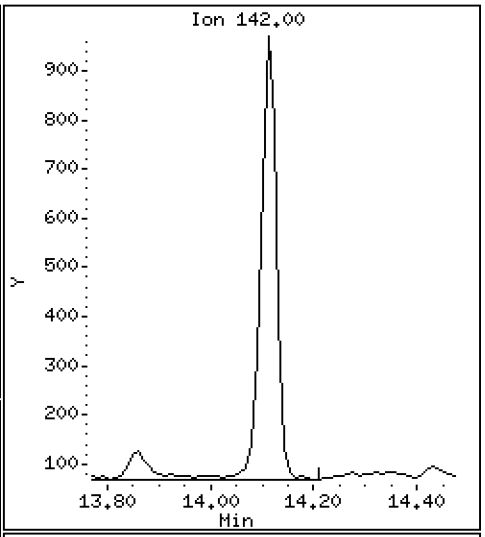
Column phase: Rxi-17Sil MS

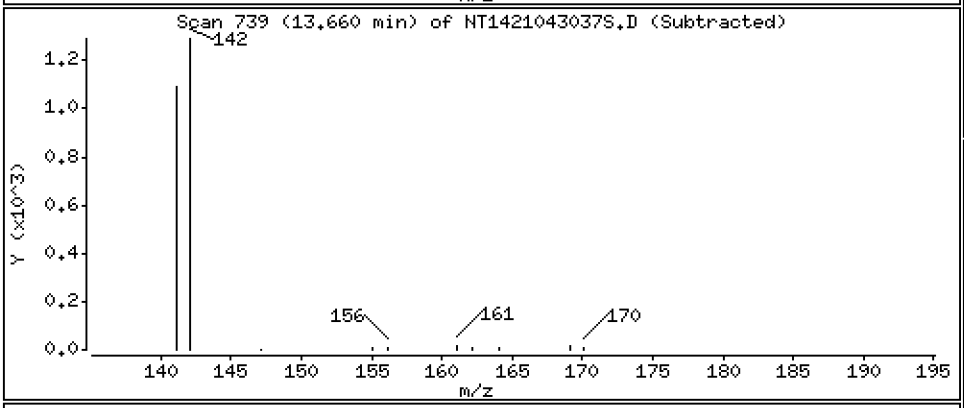
Column diameter: 0.25

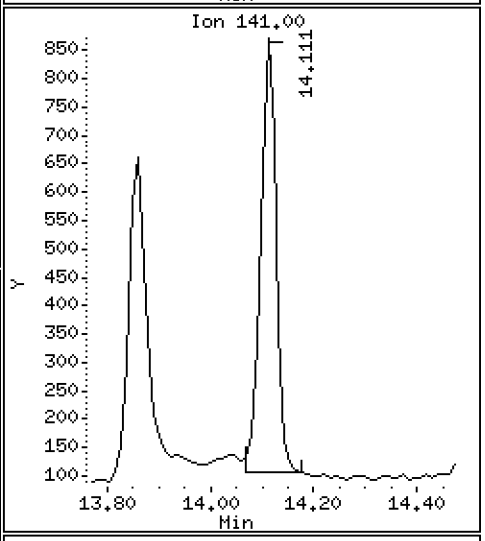
8 C1-Naphthalenes

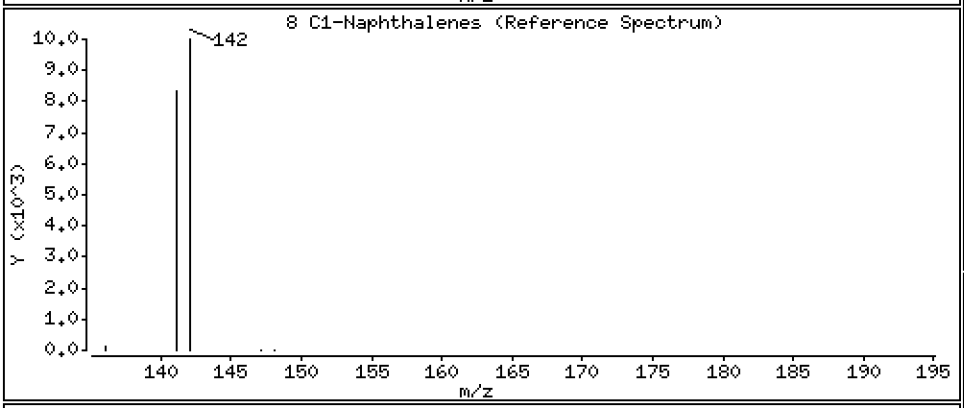
Concentration: 0.01533 ug/mL

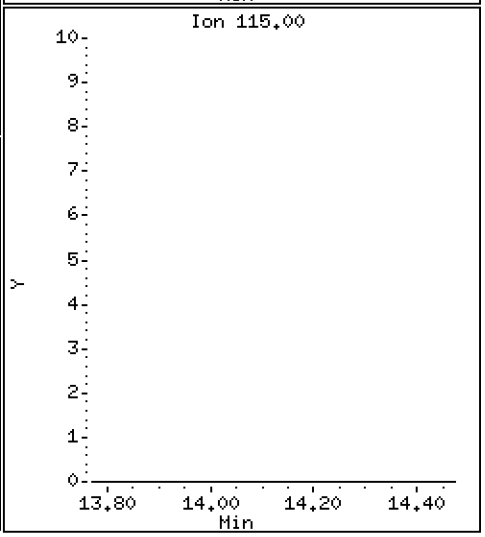


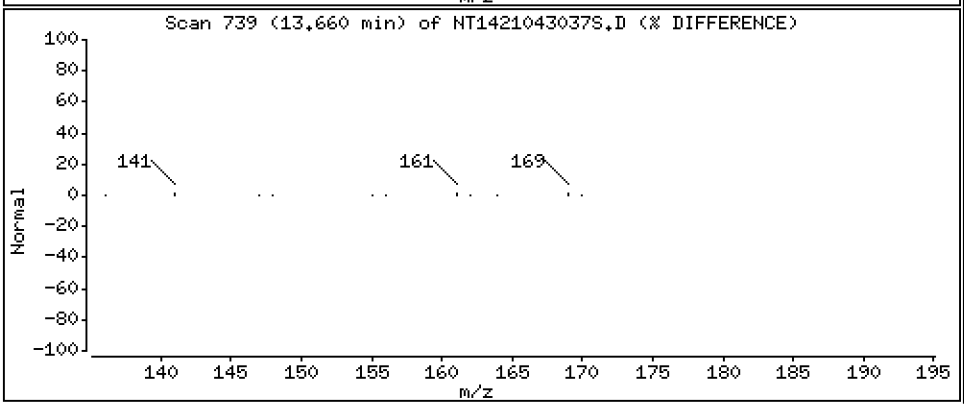












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Date : 01-MAY-2021 12:22

Client ID:

Instrument: nt14.i

Sample Info: 21D0182-02

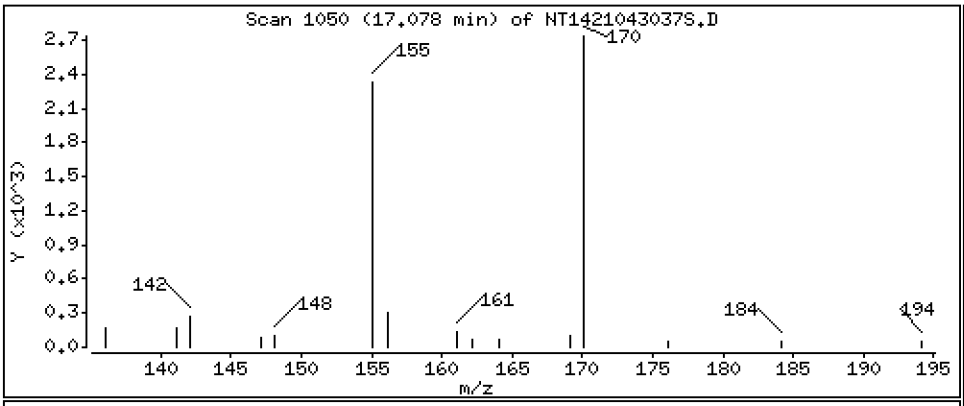
Operator: VTS

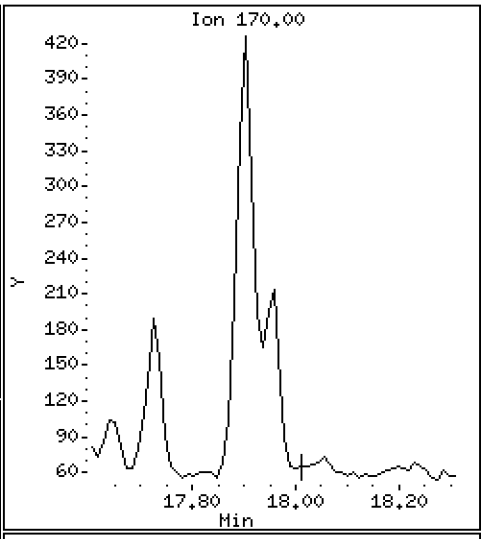
Column phase: Rxi-17Sil MS

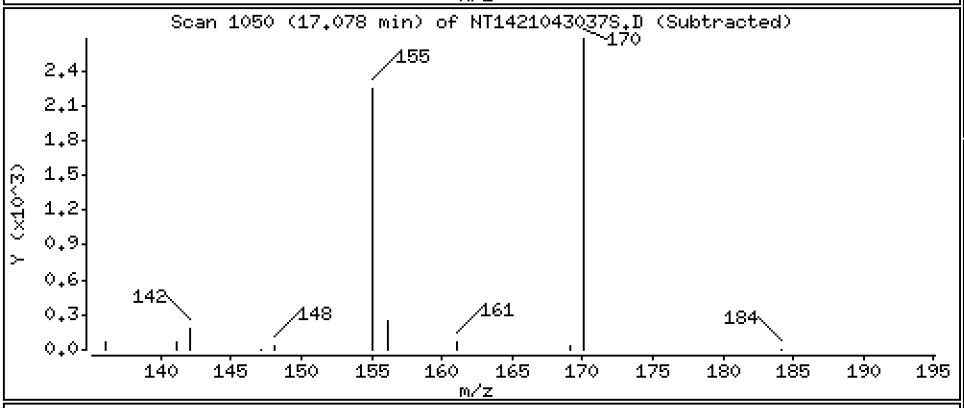
Column diameter: 0.25

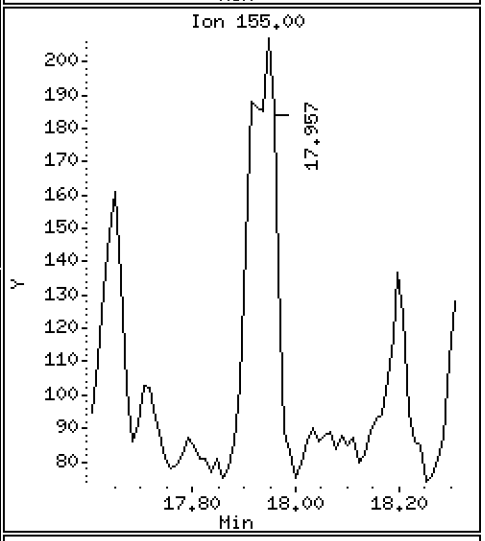
10 C3-Naphthalenes

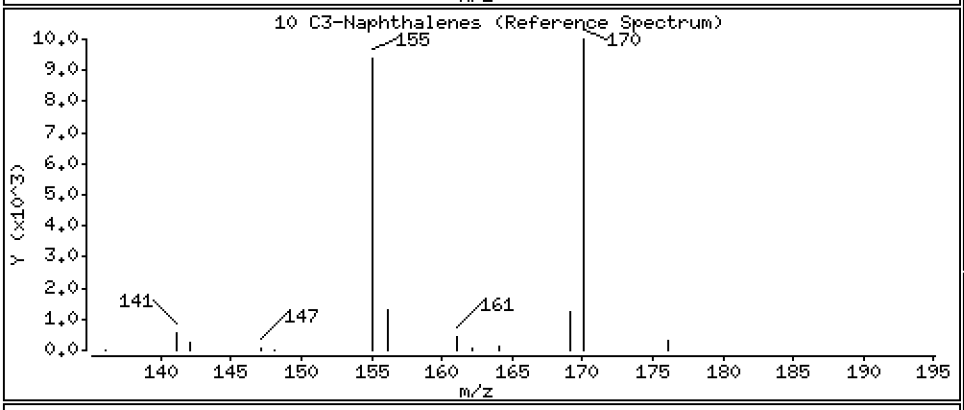
Concentration: 0.05572 ug/mL

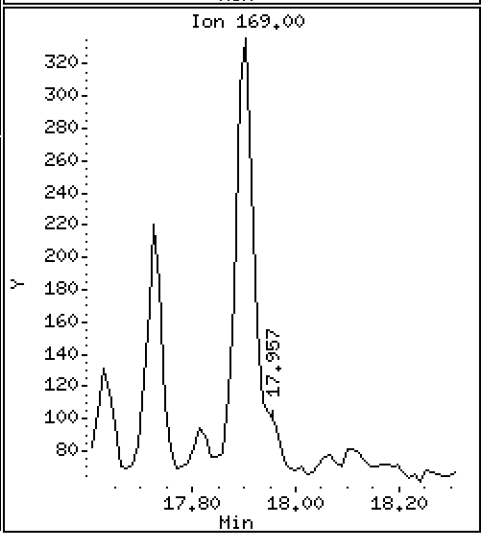


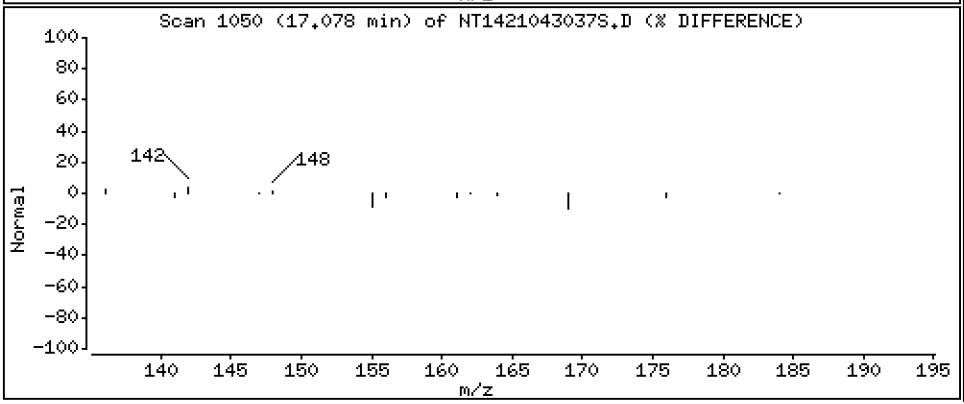












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043037S.D
Lab Smp Id: 21D0182-02
Inj Date : 01-MAY-2021 12:22
Operator : VTS Inst ID: nt14.i
Smp Info : 21D0182-02
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 33
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
3	C1-Decalin	152	8.842	8.800	(0.471)	497	0.01566	0.01566
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	13.660	14.121	(0.728)	5554	0.01533	0.01533(M)
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	17.078	17.957	(0.910)	20188	0.05572	0.05572(M)
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.762	18.774	(1.000)	617189	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
* 250	Anthracene-d10	188	22.205	22.216	(1.000)	548317	2.00000	
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	Compound Not Detected.					
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59	C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60	C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61	C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
71	C1-Dibenzo(a)anthracenes	292	Compound Not Detected.					
* 251	Benzo(e)pyrene-d12	264	33.036	33.037	(1.000)	507165	2.00000	
72	C2-Dibenzo(a)anthracenes	306	Compound Not Detected.					
73	C3-Dibenzo(a)anthracenes	320	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i Calibration Date: 01-MAY-2021
Lab File ID: NT1421043037S.D Calibration Time: 01:56
Lab Smp Id: 21D0182-02
Analysis Type: SV Level:
Quant Type: ISTD Sample Type:
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	615800	307900	1231600	617189	0.23
250 Anthracene-d10	563384	281692	1126768	548317	-2.67
251 Benzo(e)pyrene-d1	606671	303336	1213342	507165	-16.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Quant Ion Manual Peak Adjustment Report

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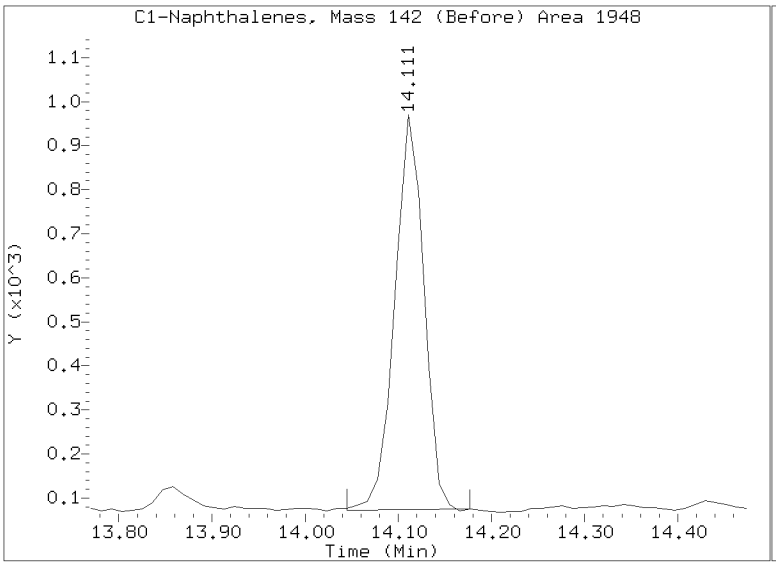

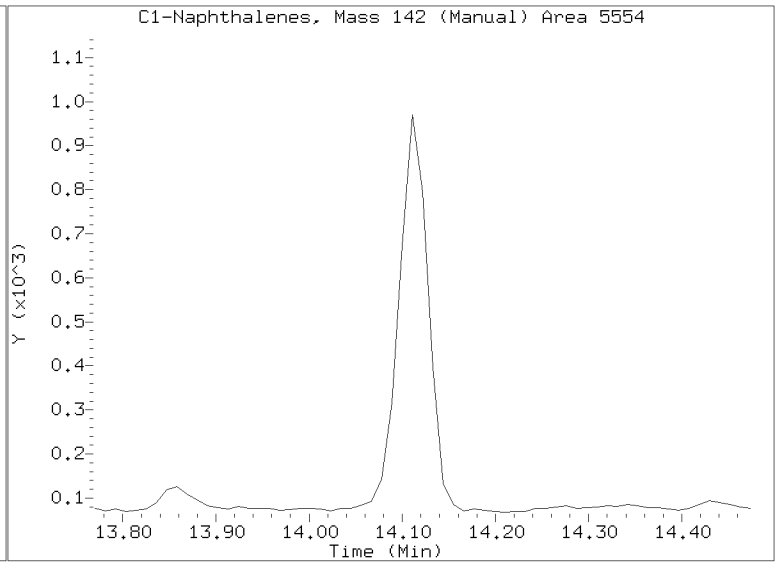

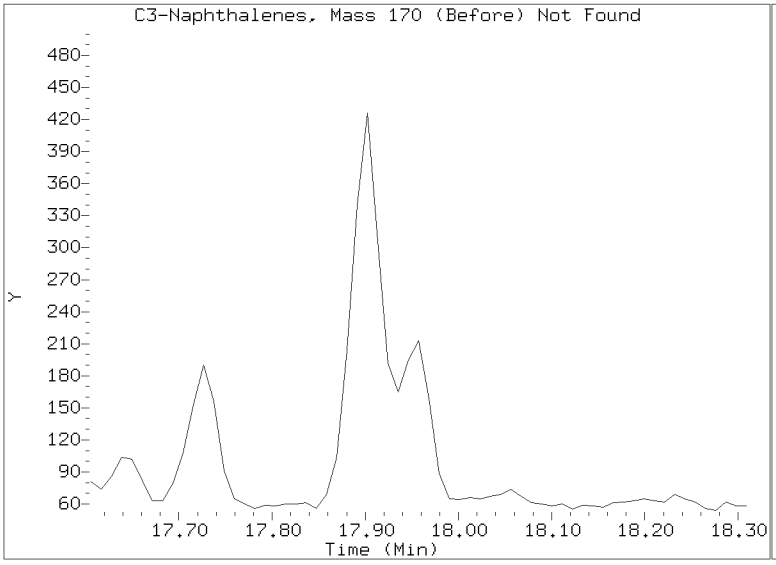

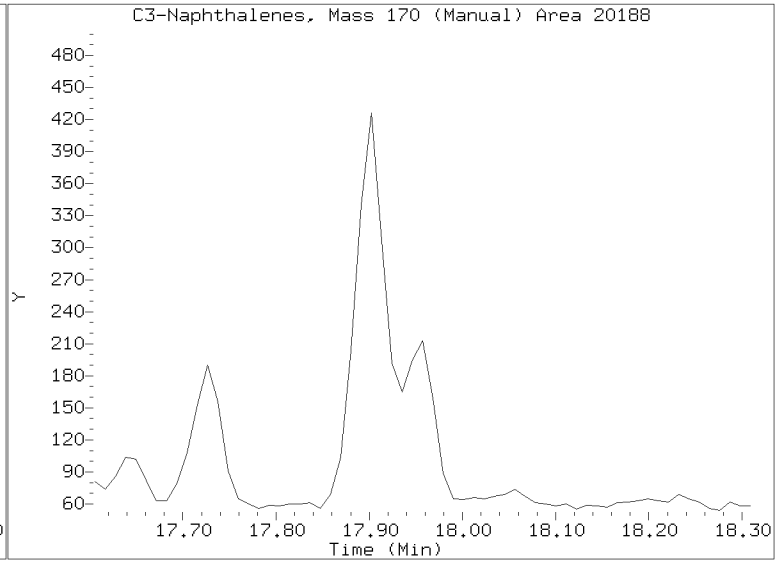

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

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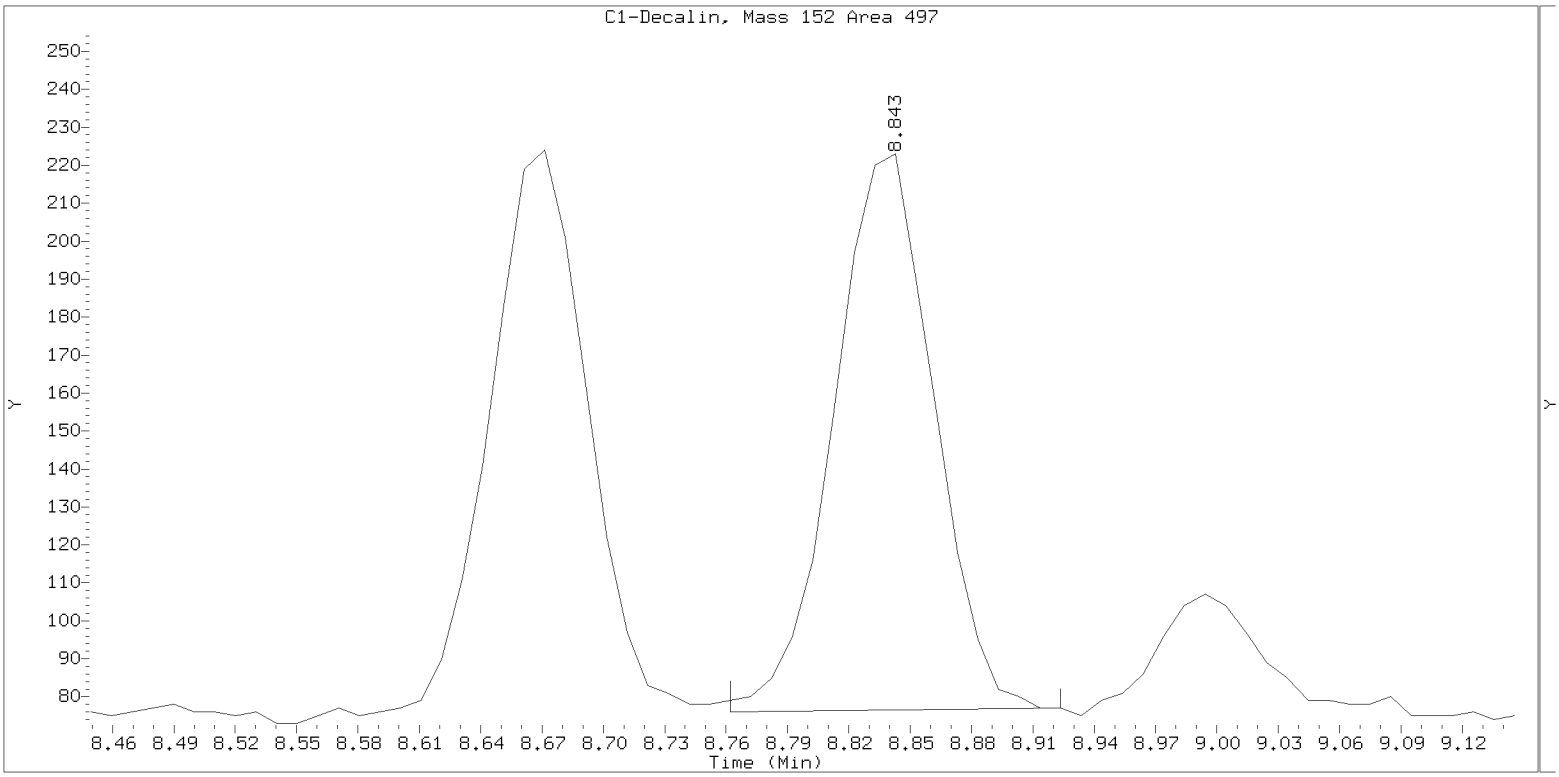

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

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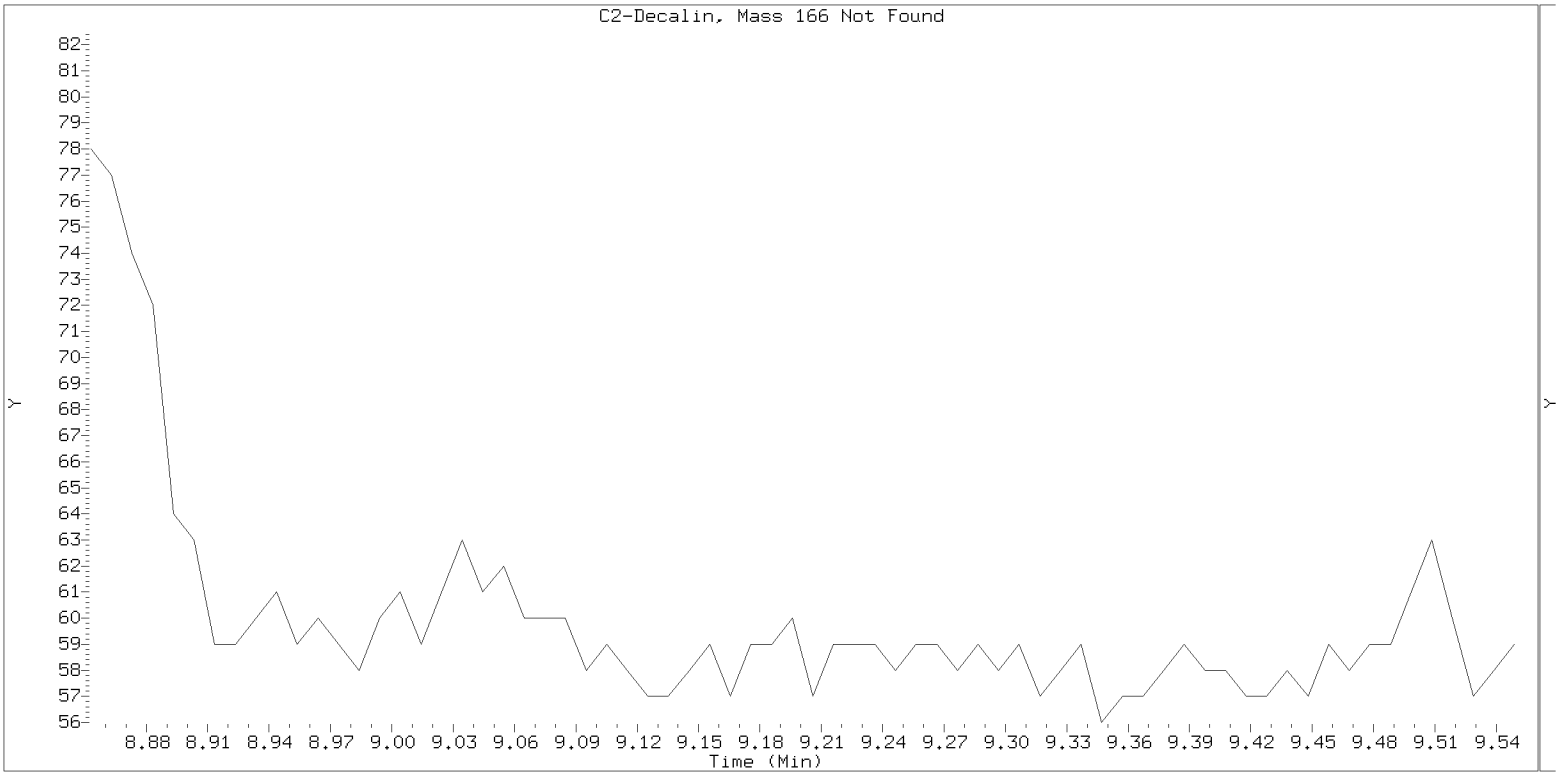

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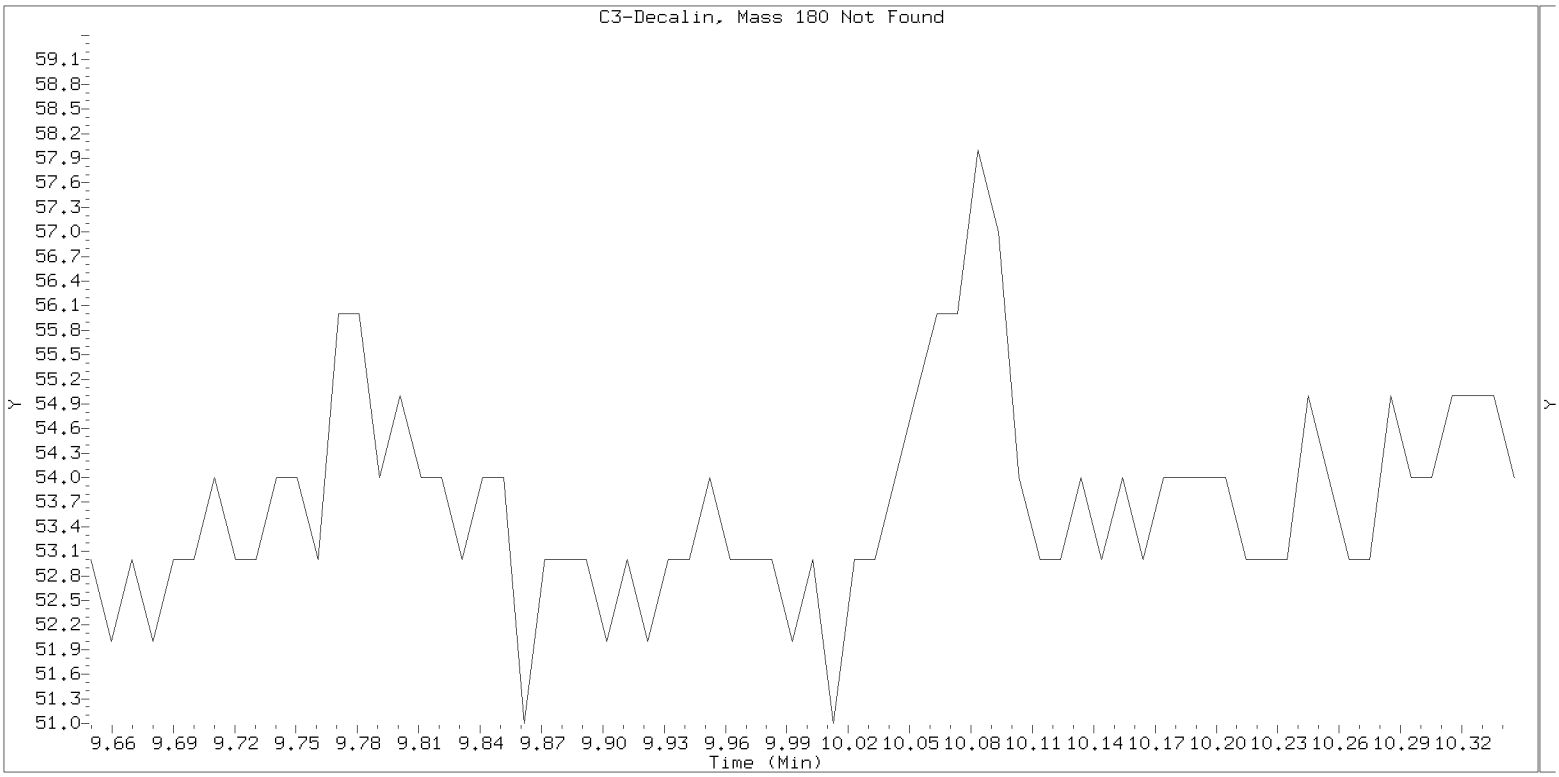

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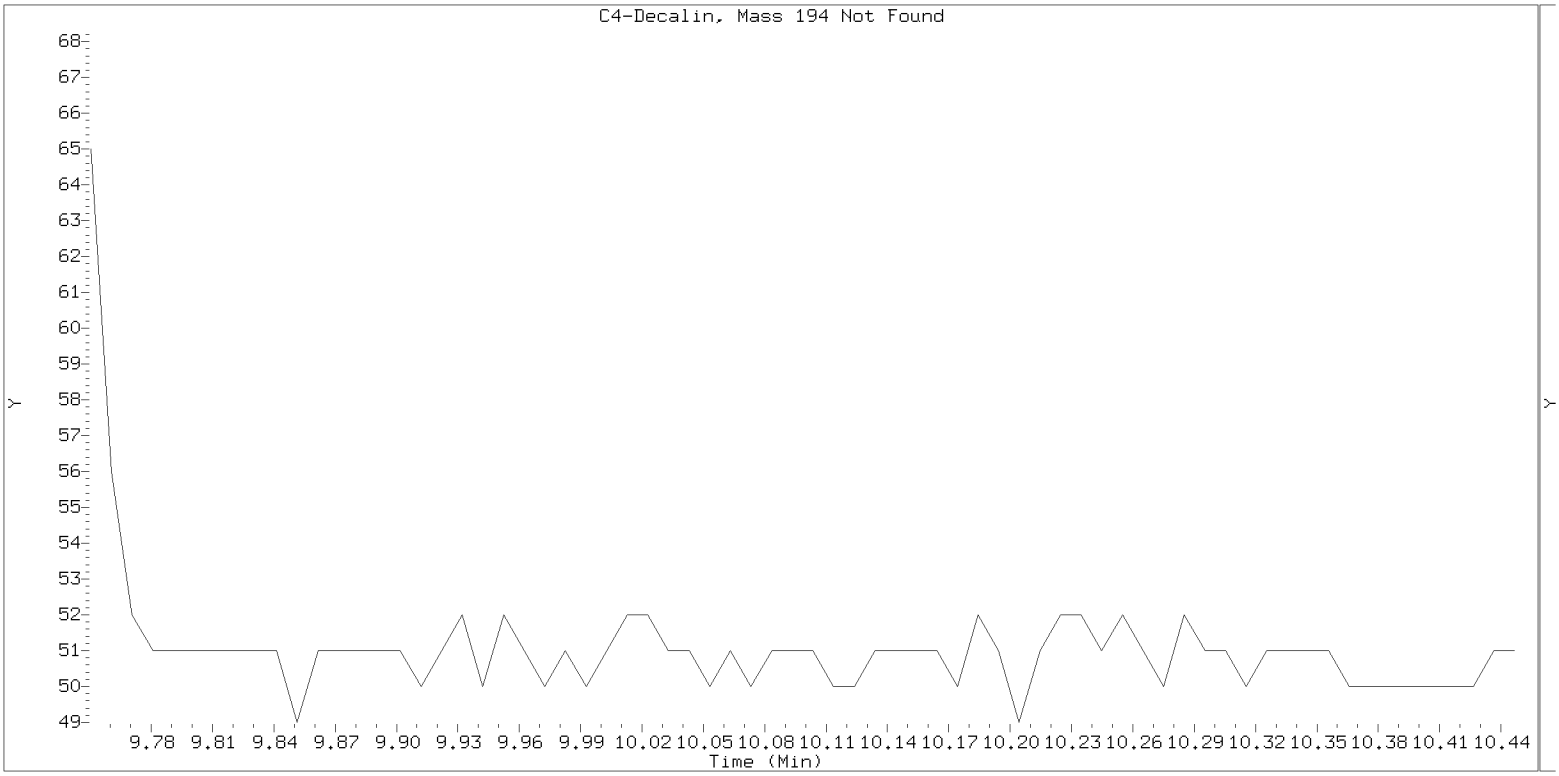

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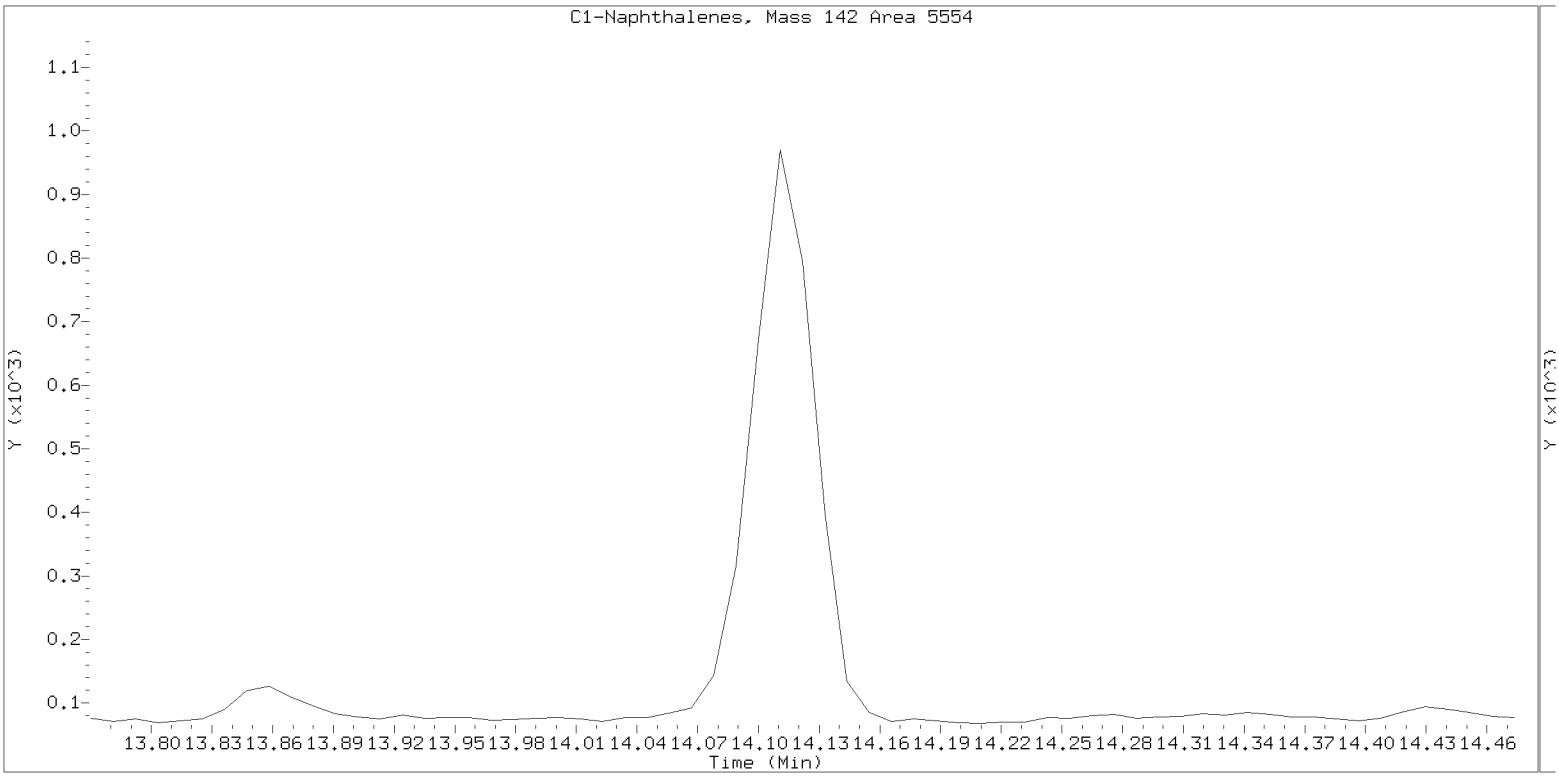

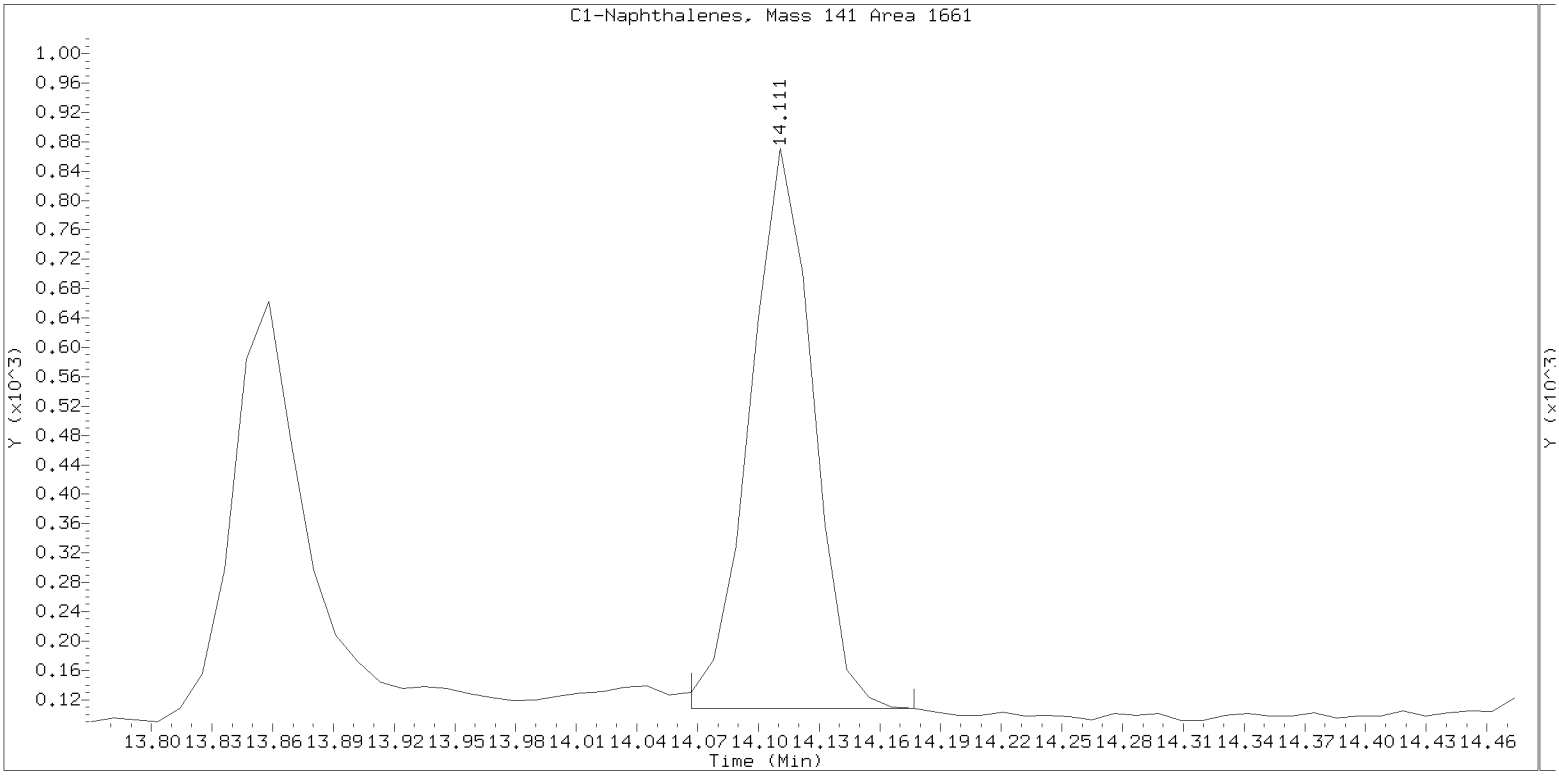

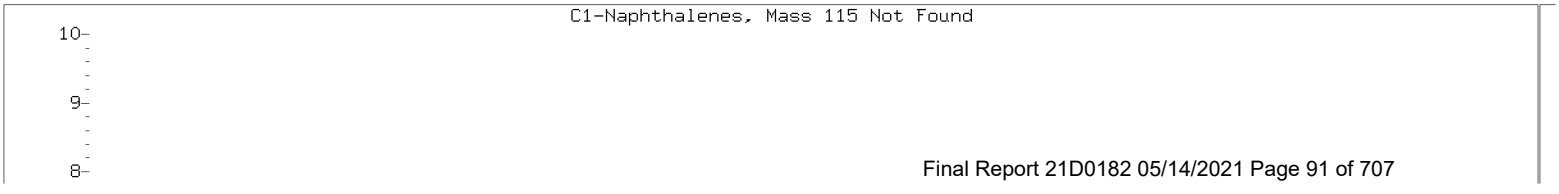

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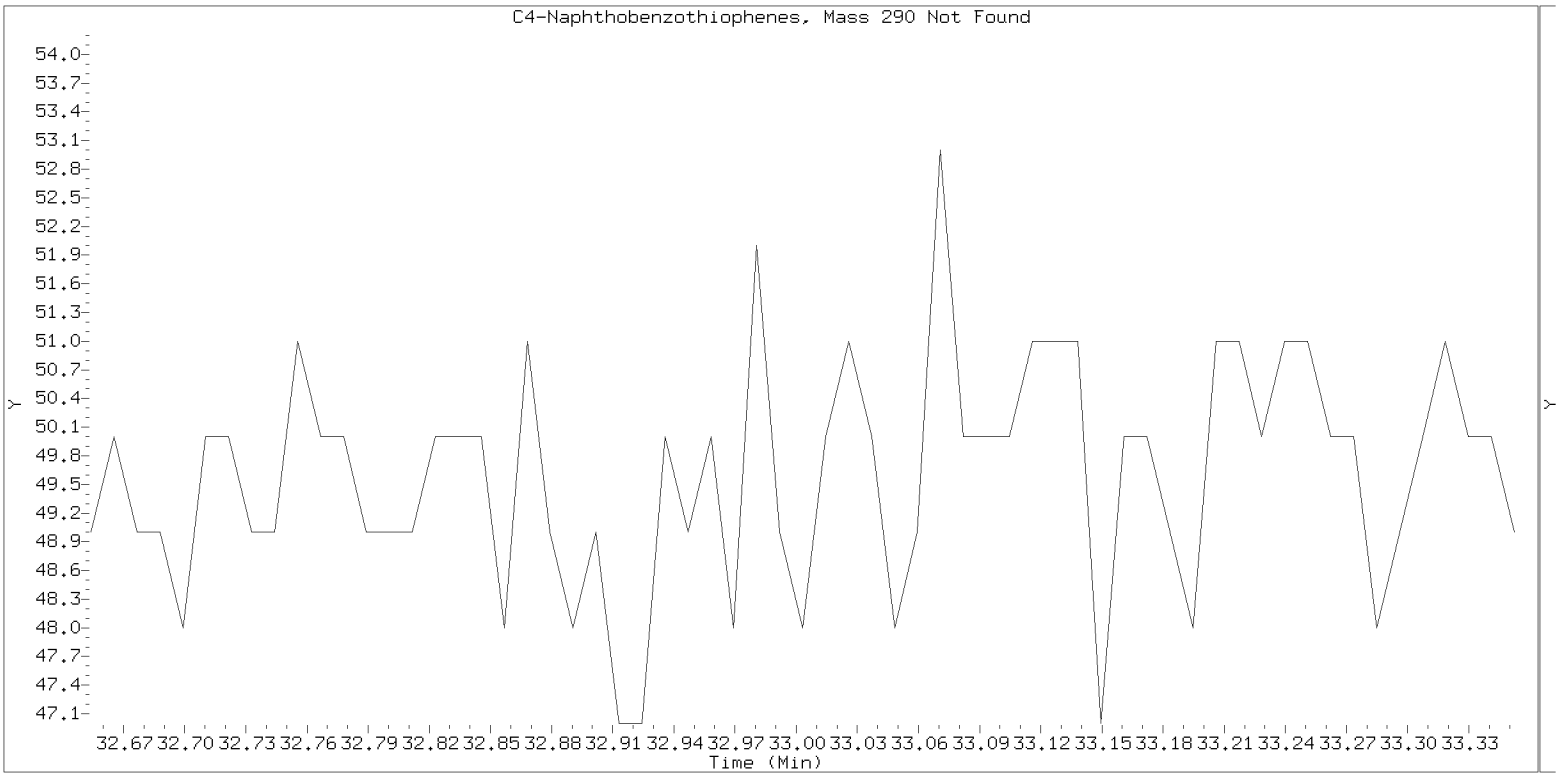

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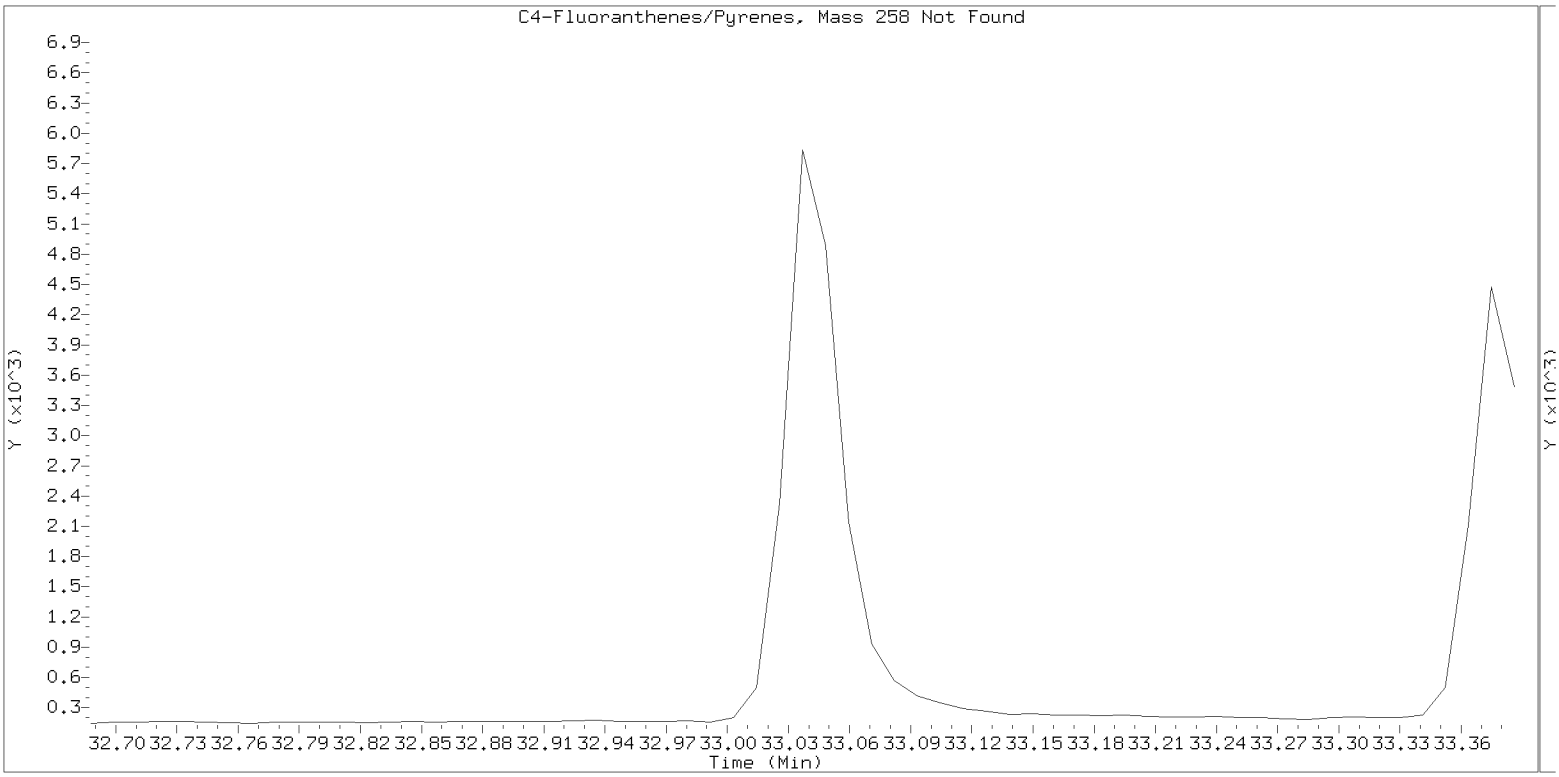

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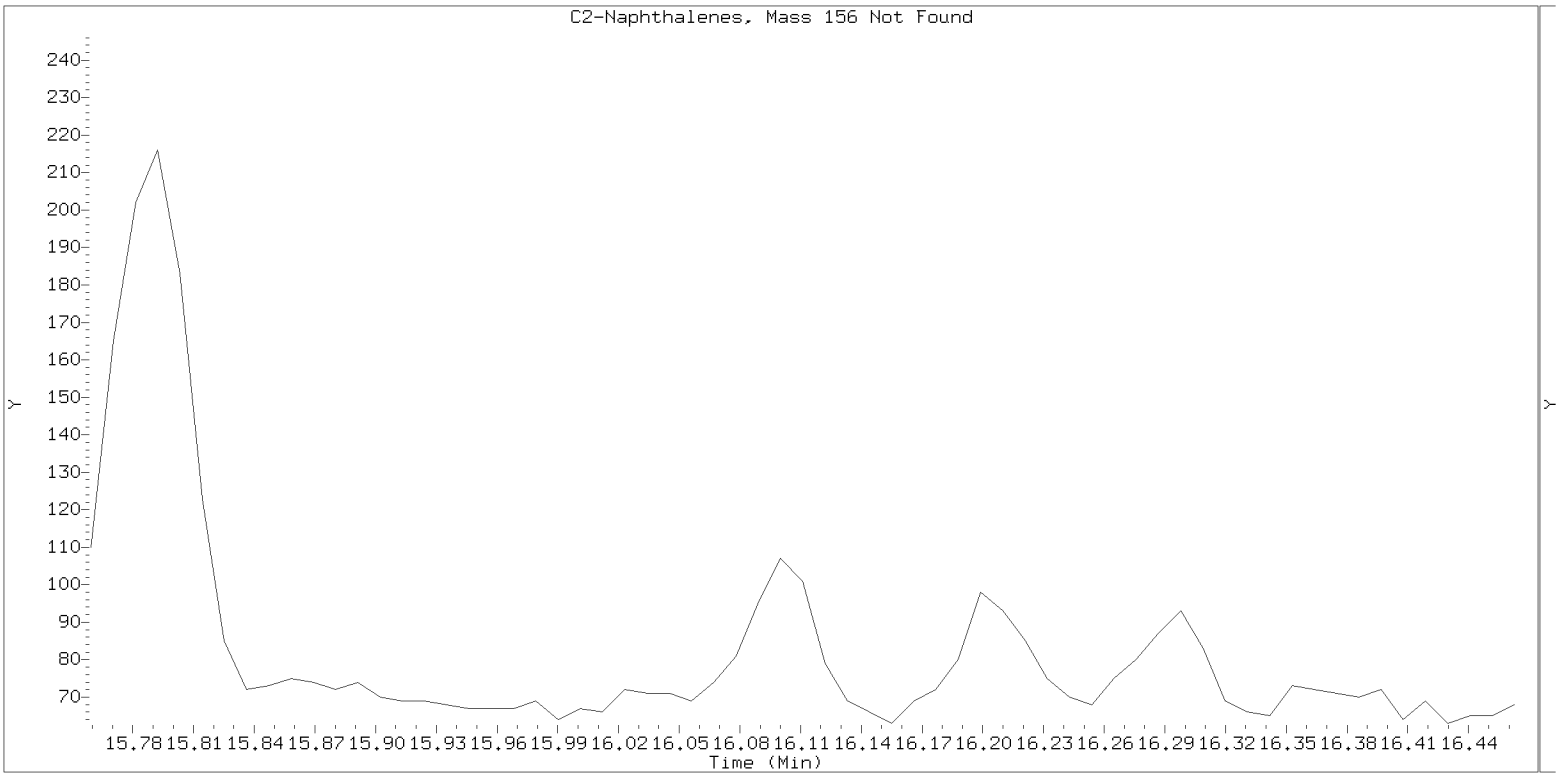

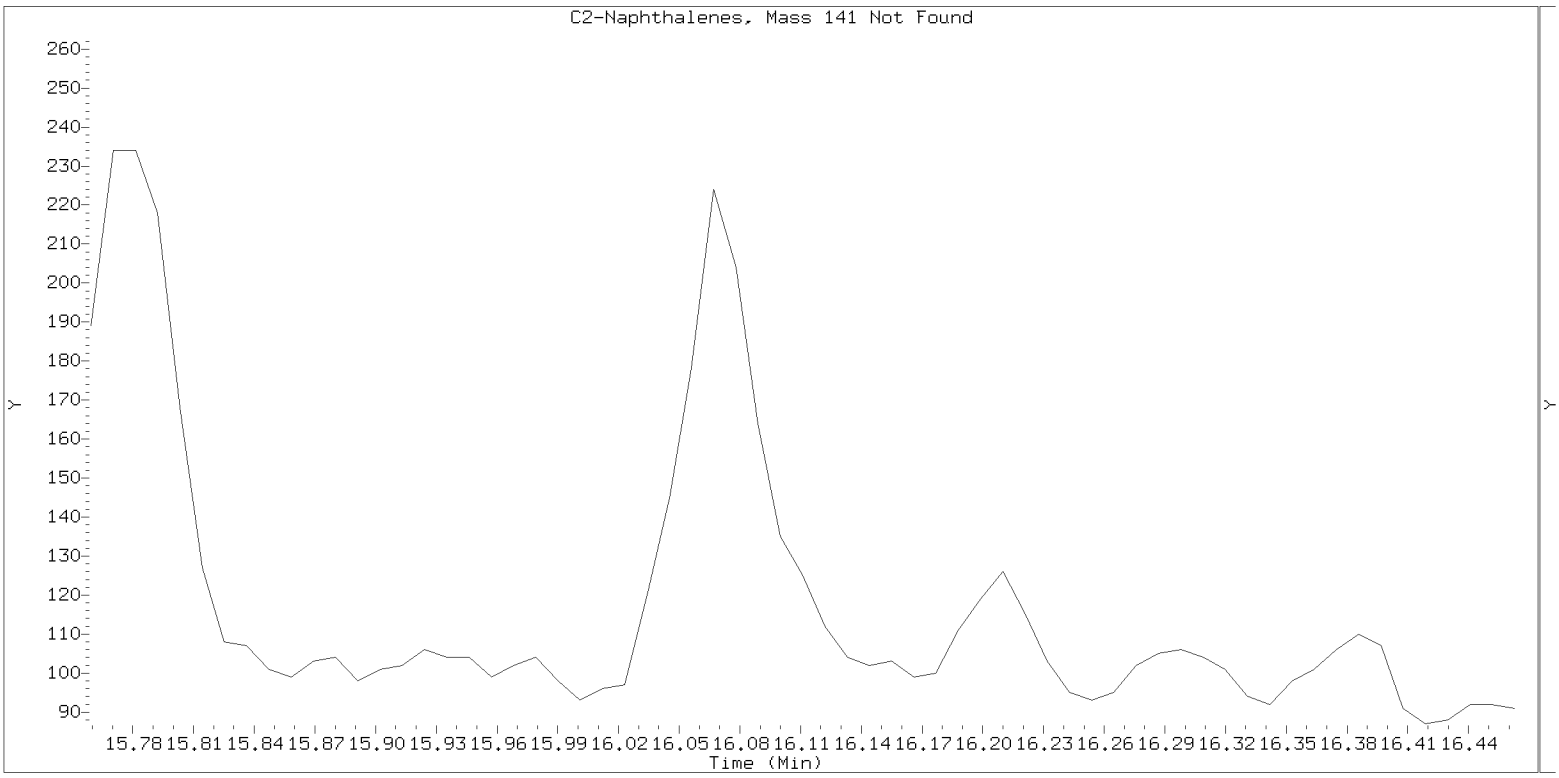

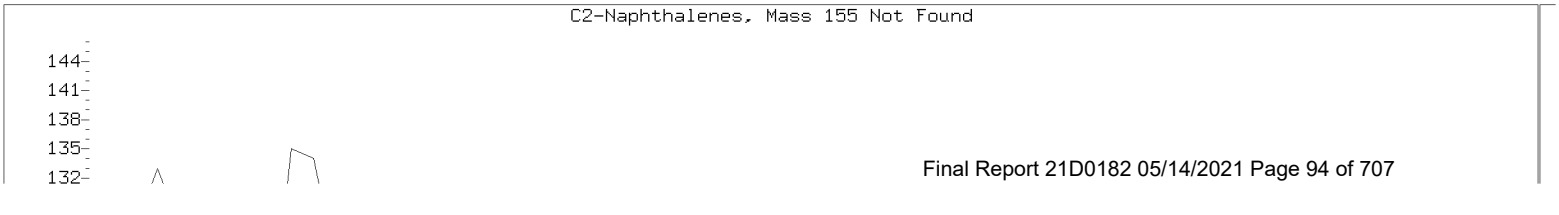

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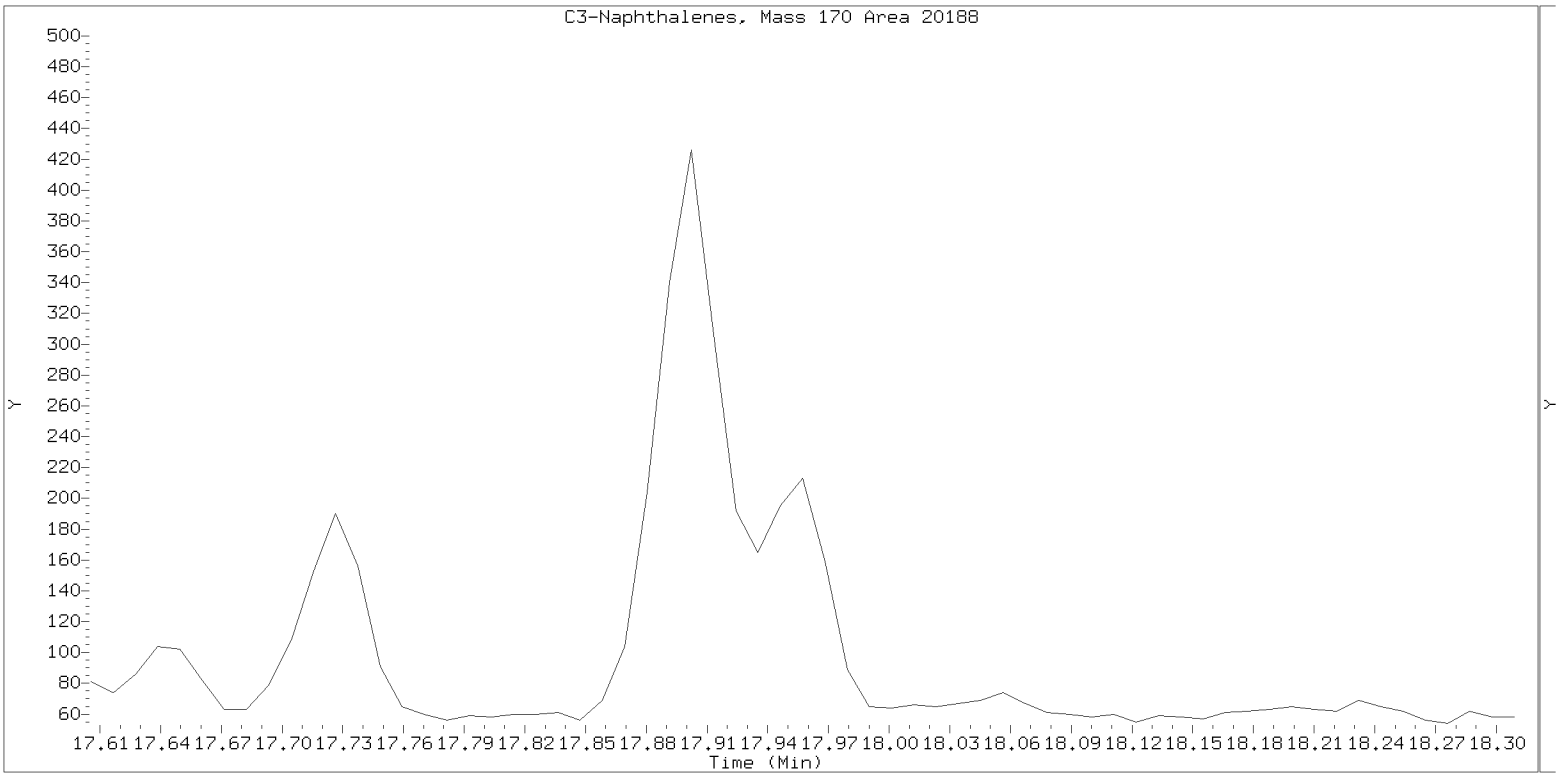

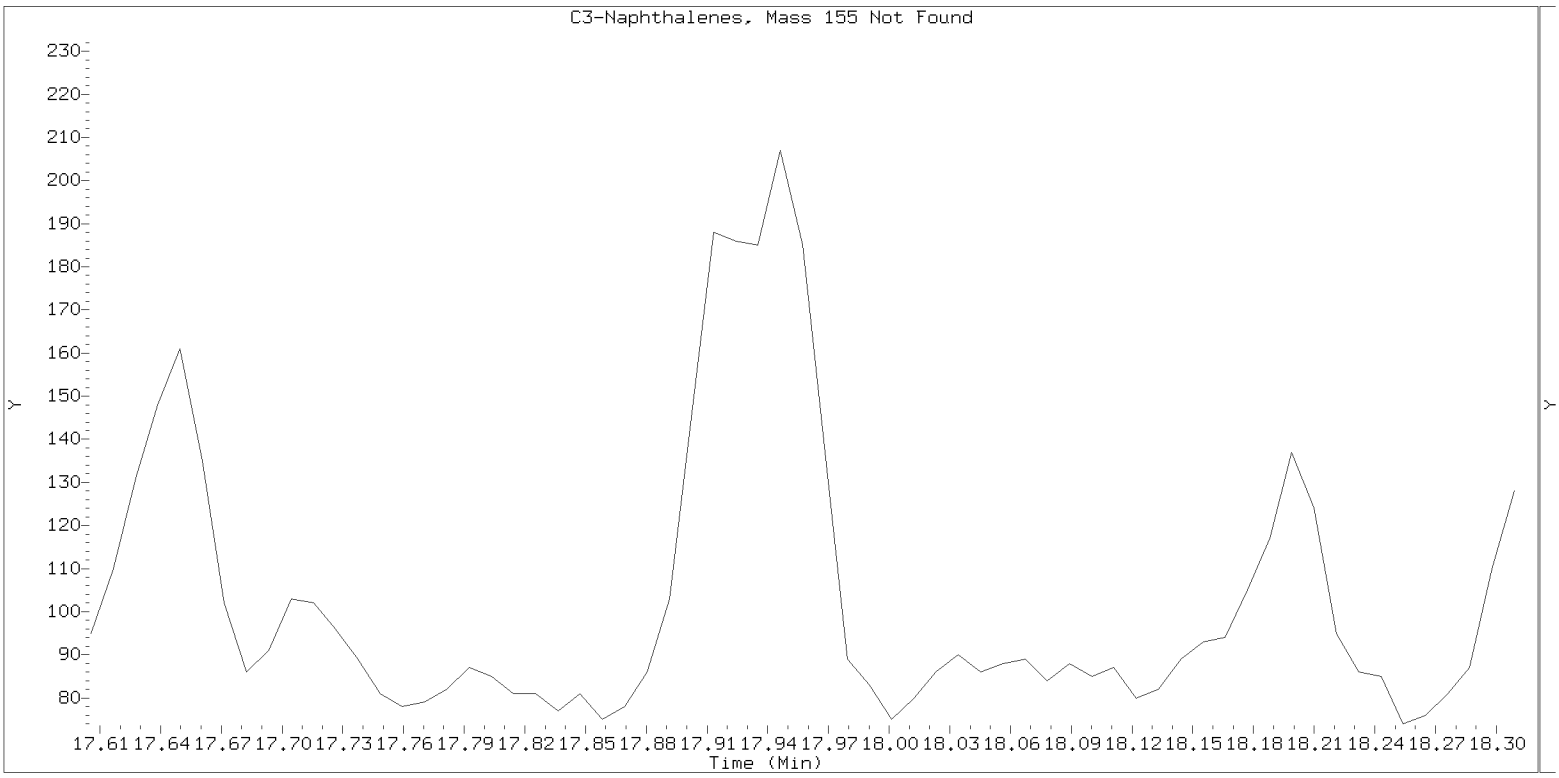

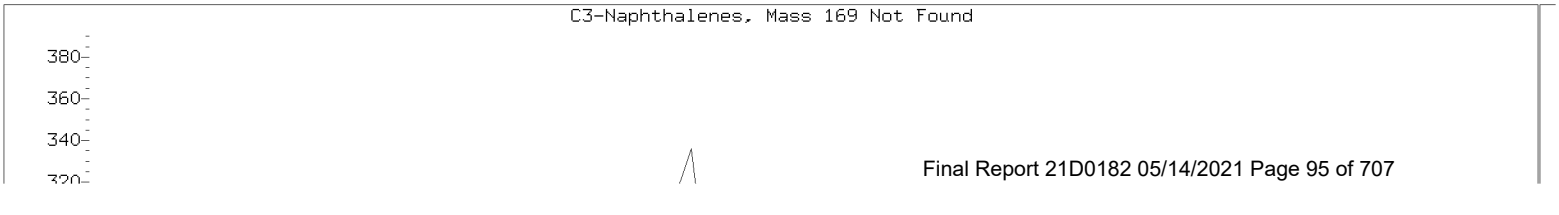

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

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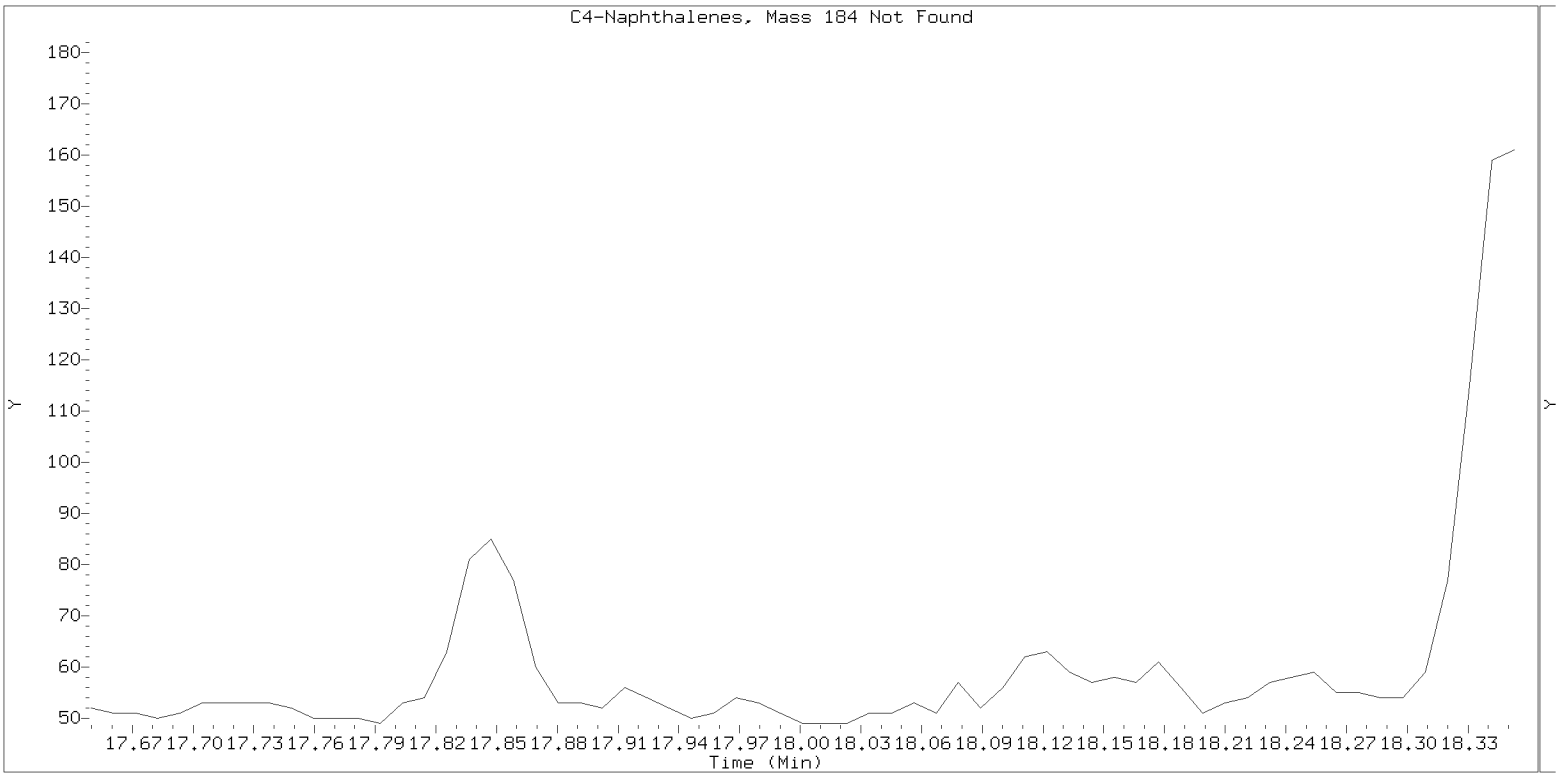

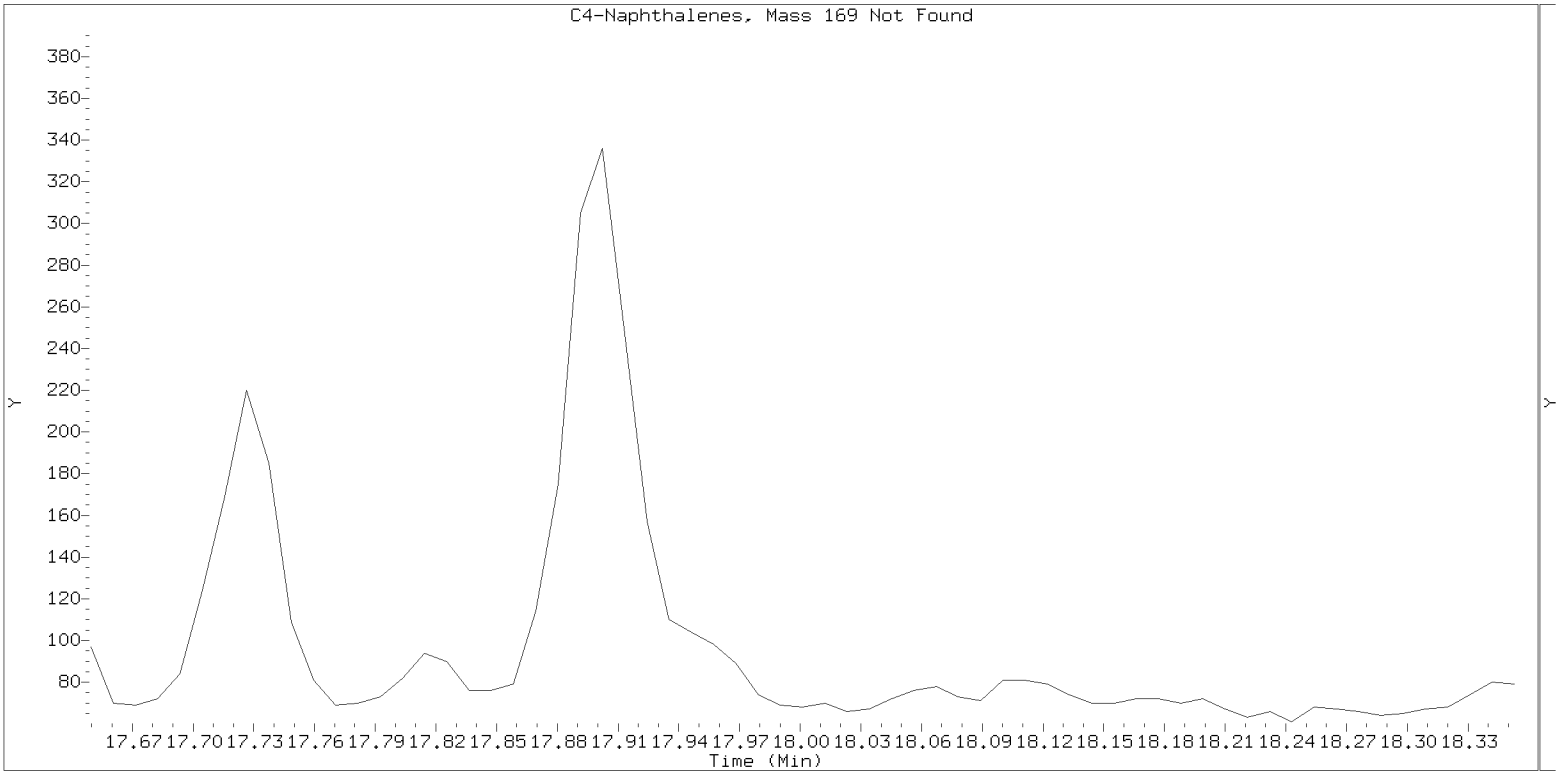

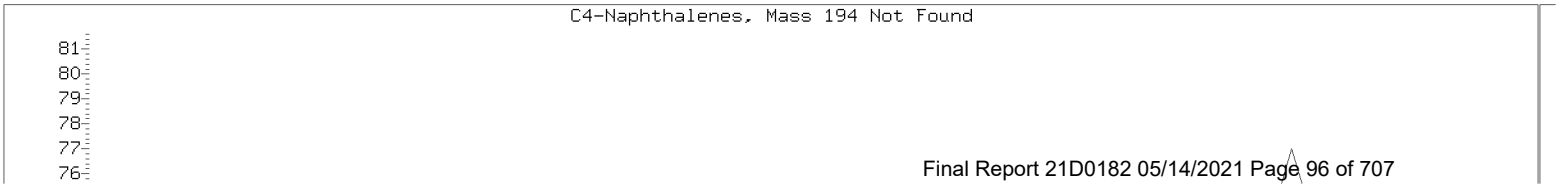

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

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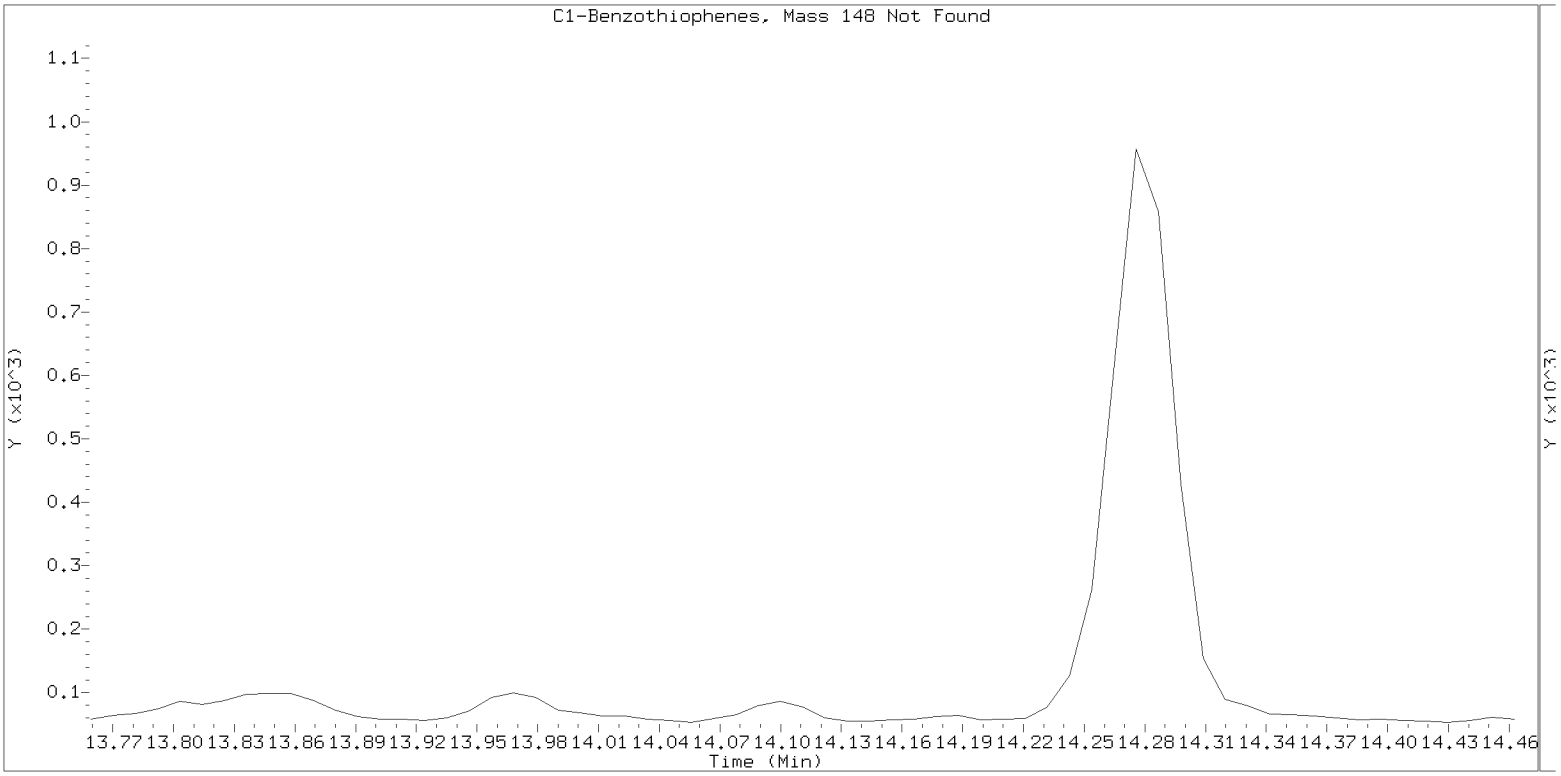

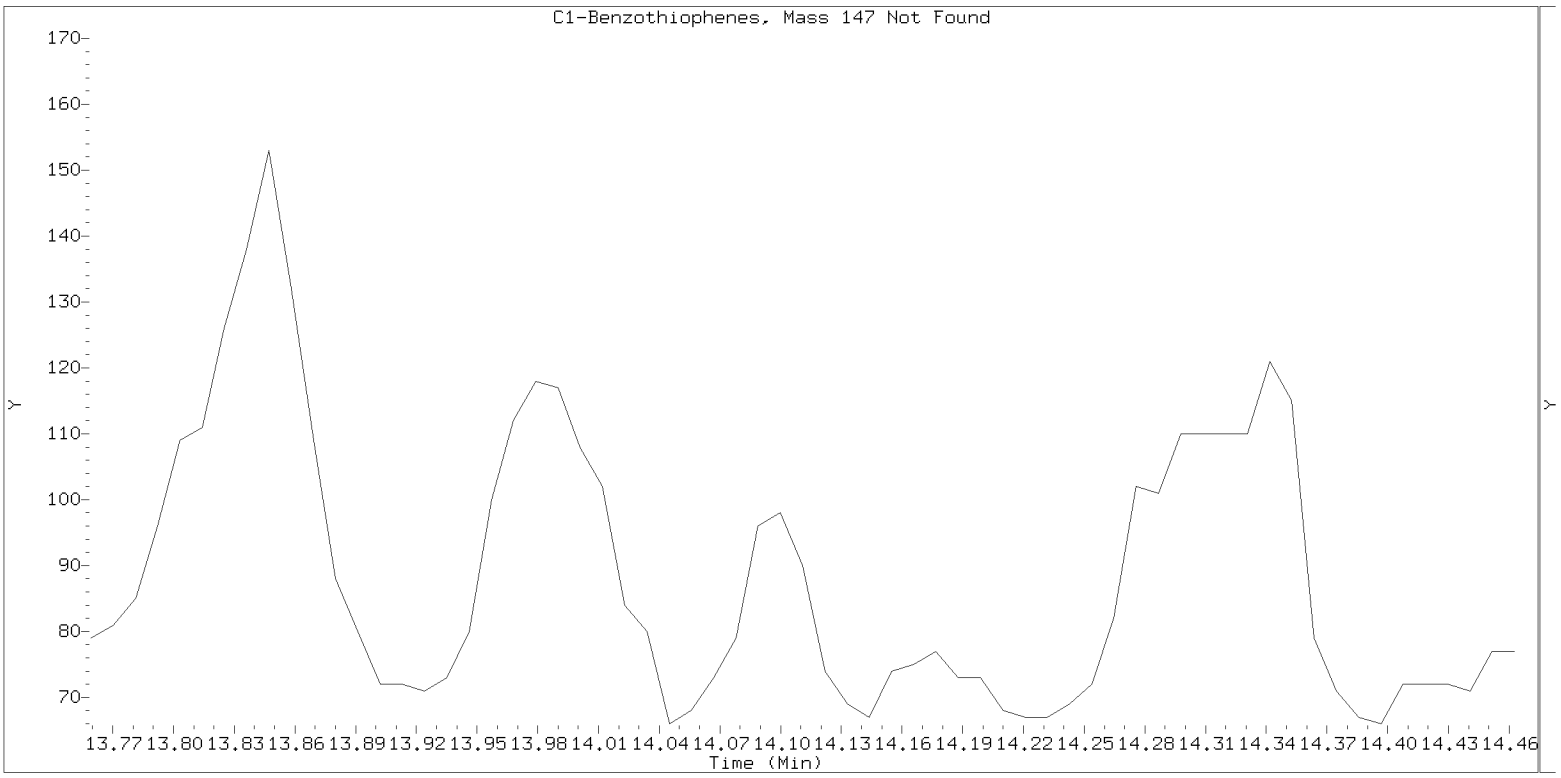

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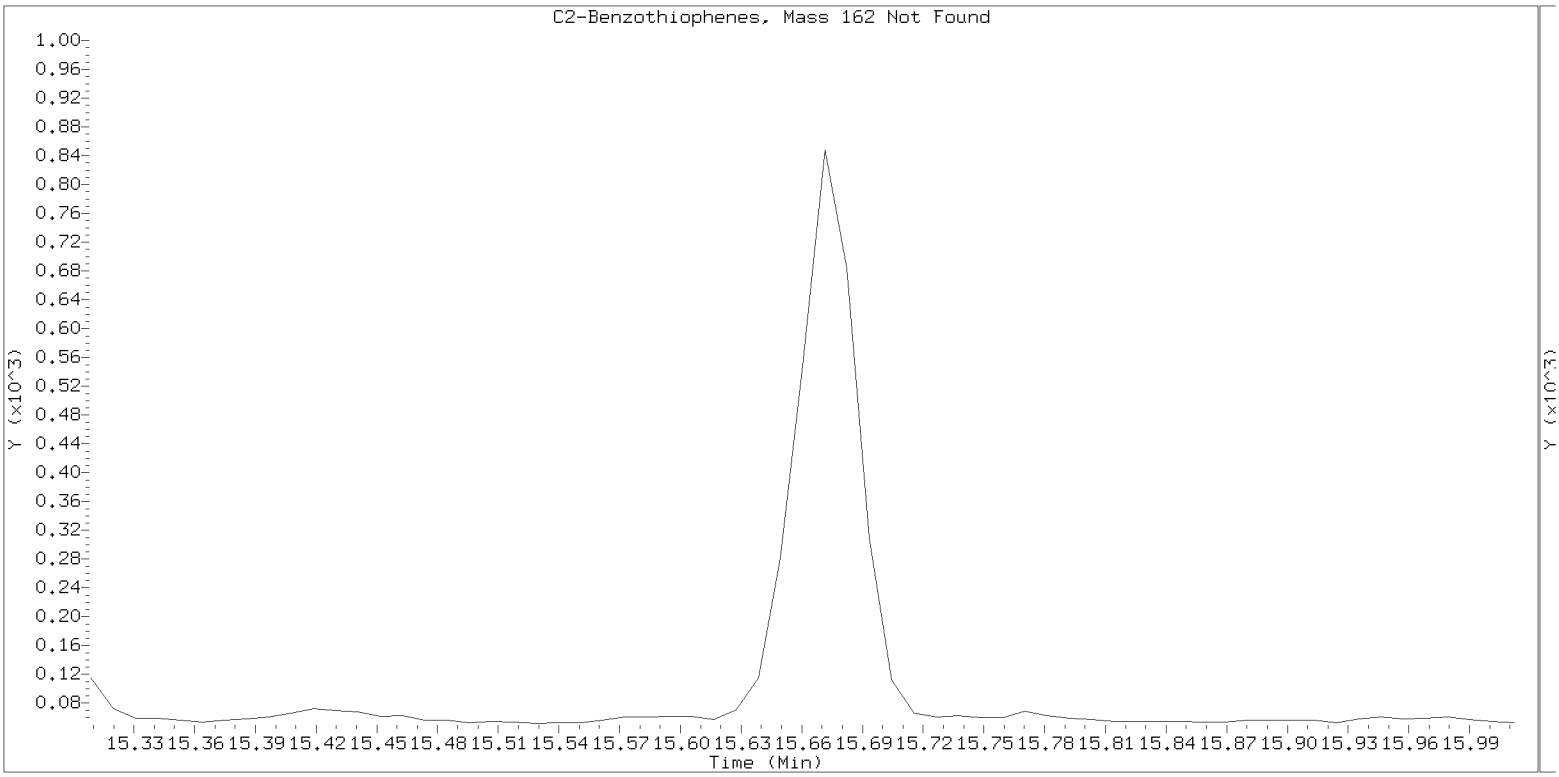

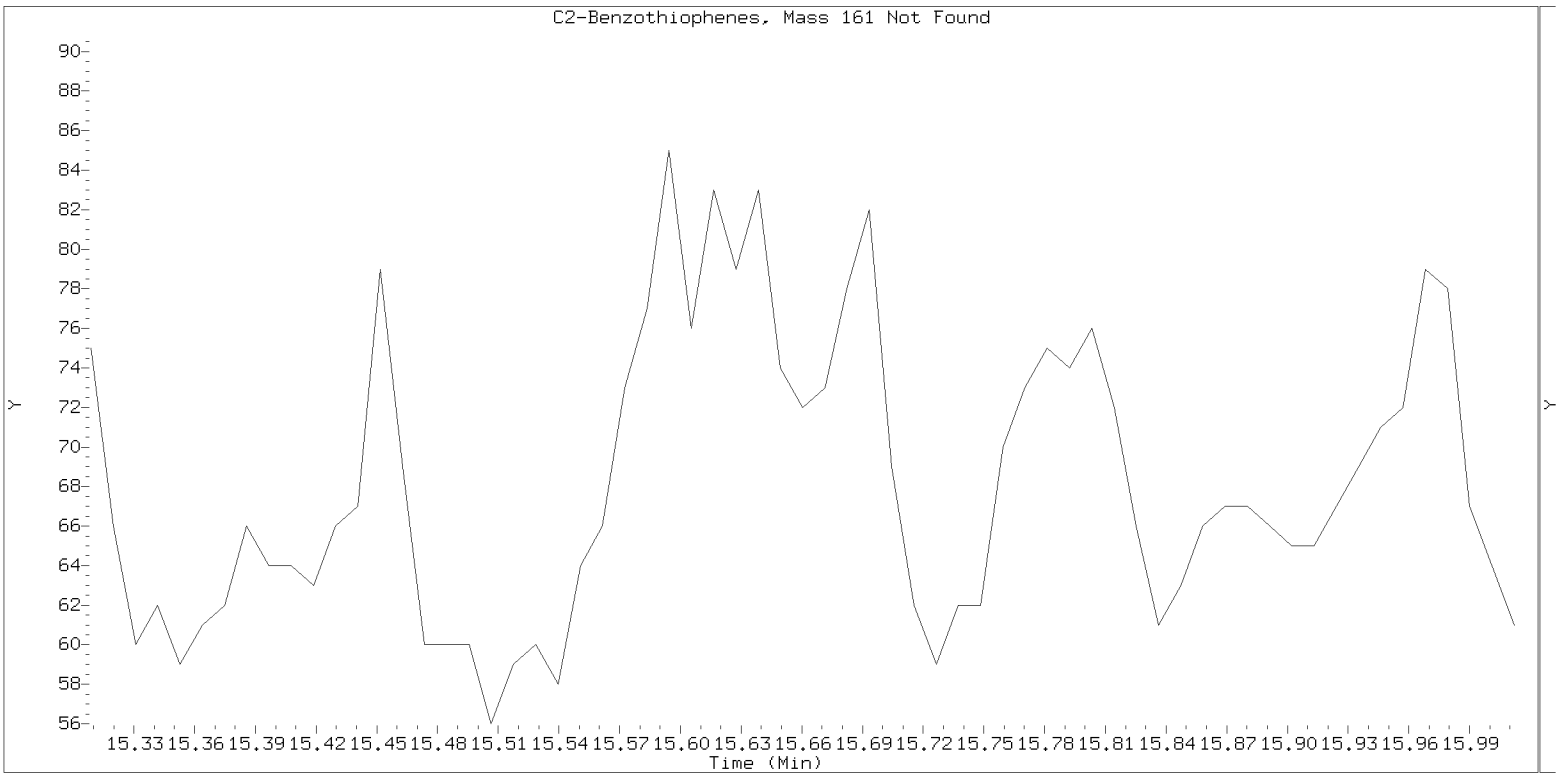

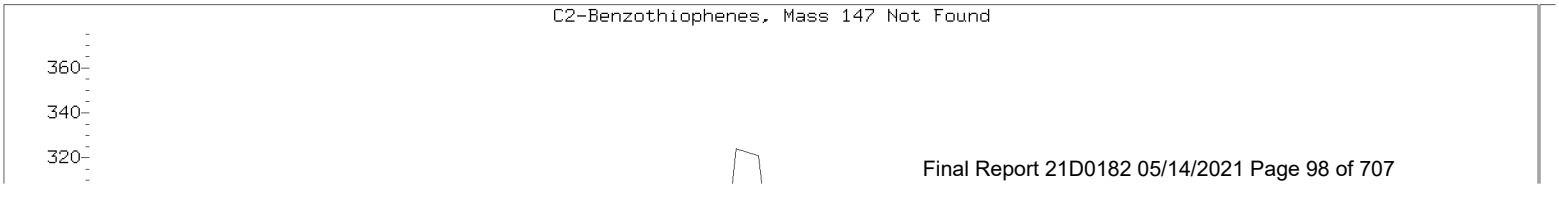

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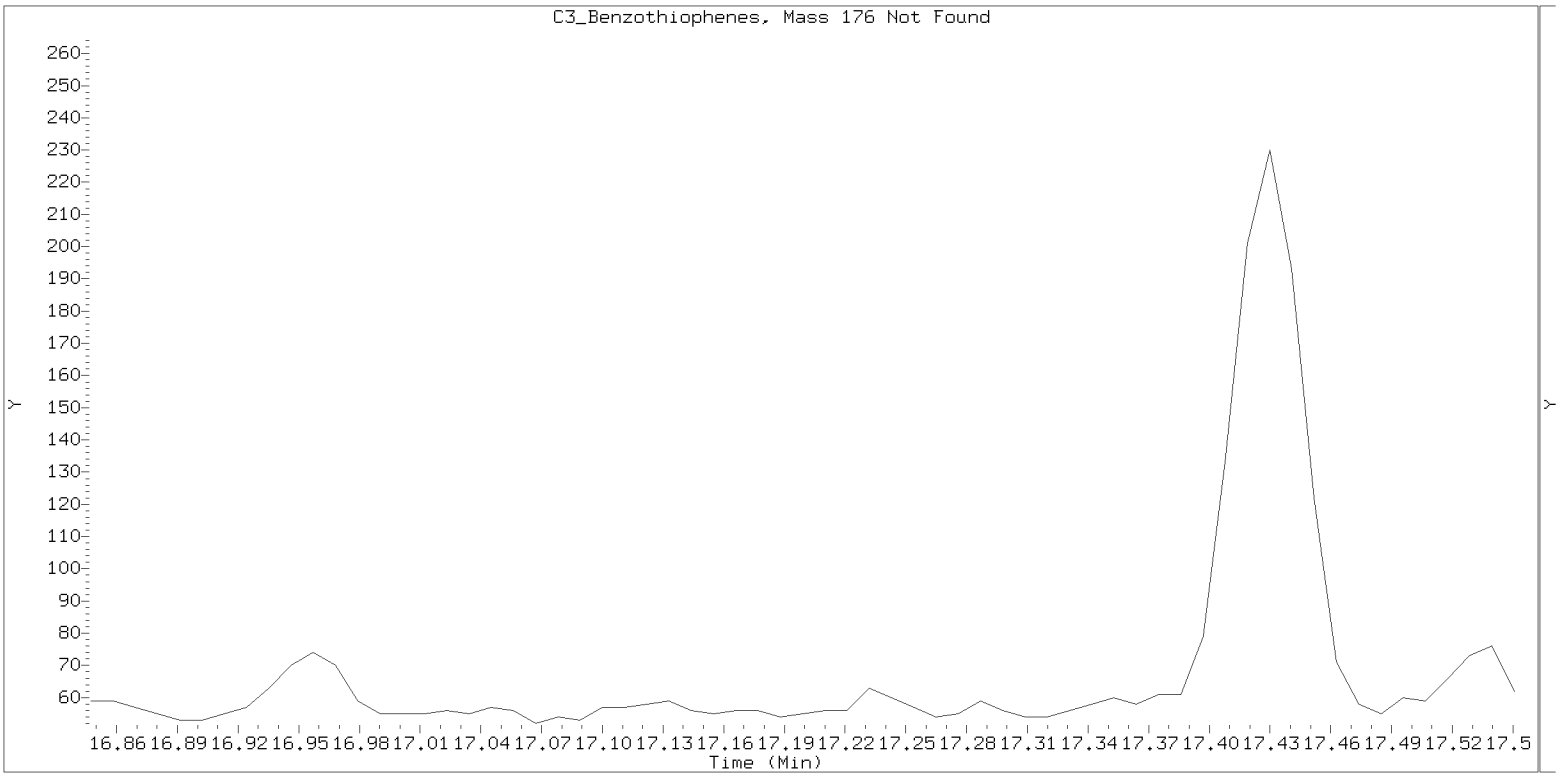

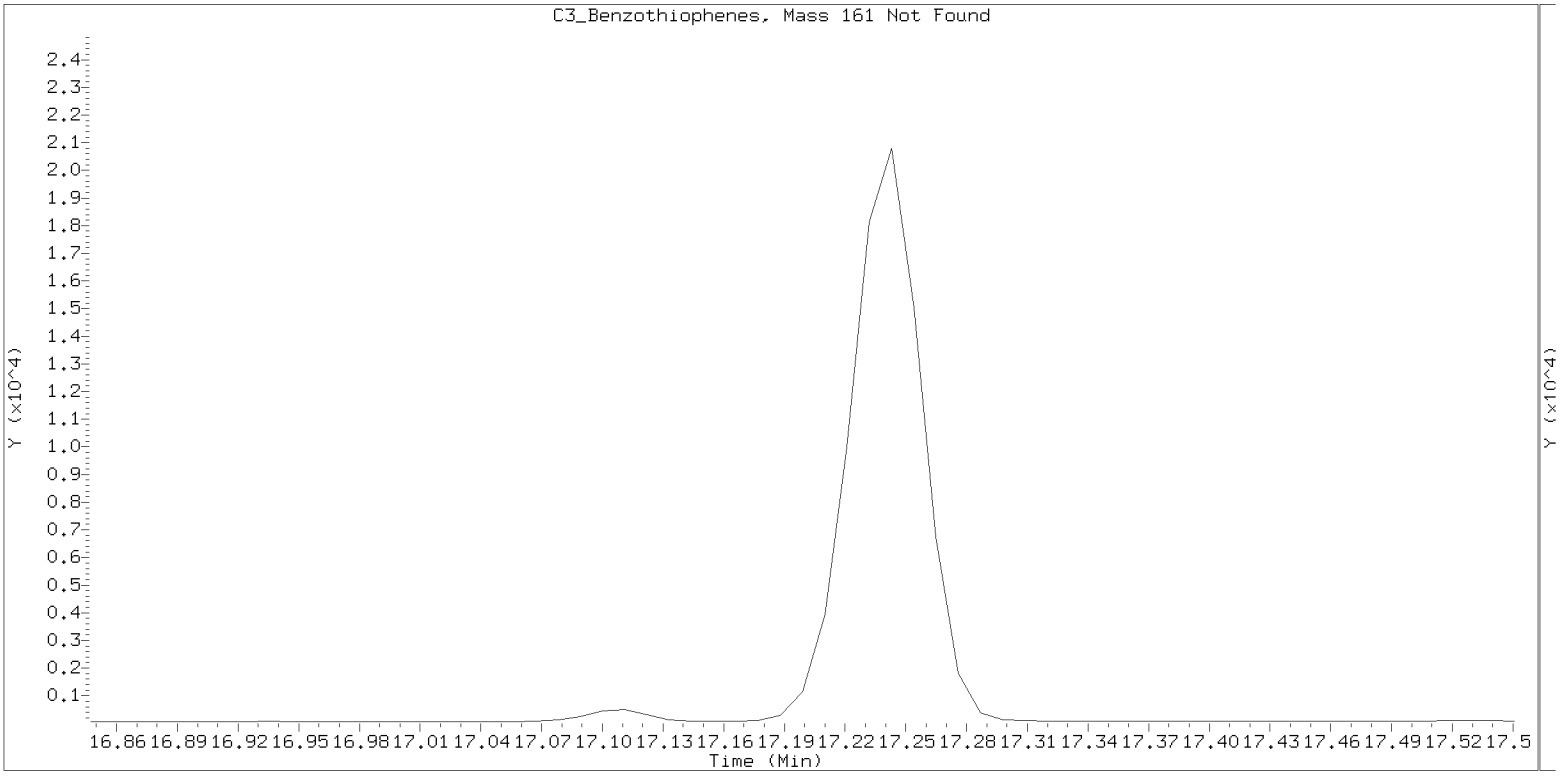

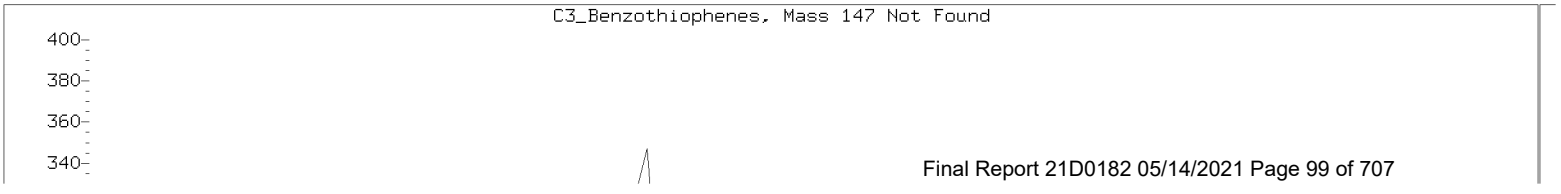

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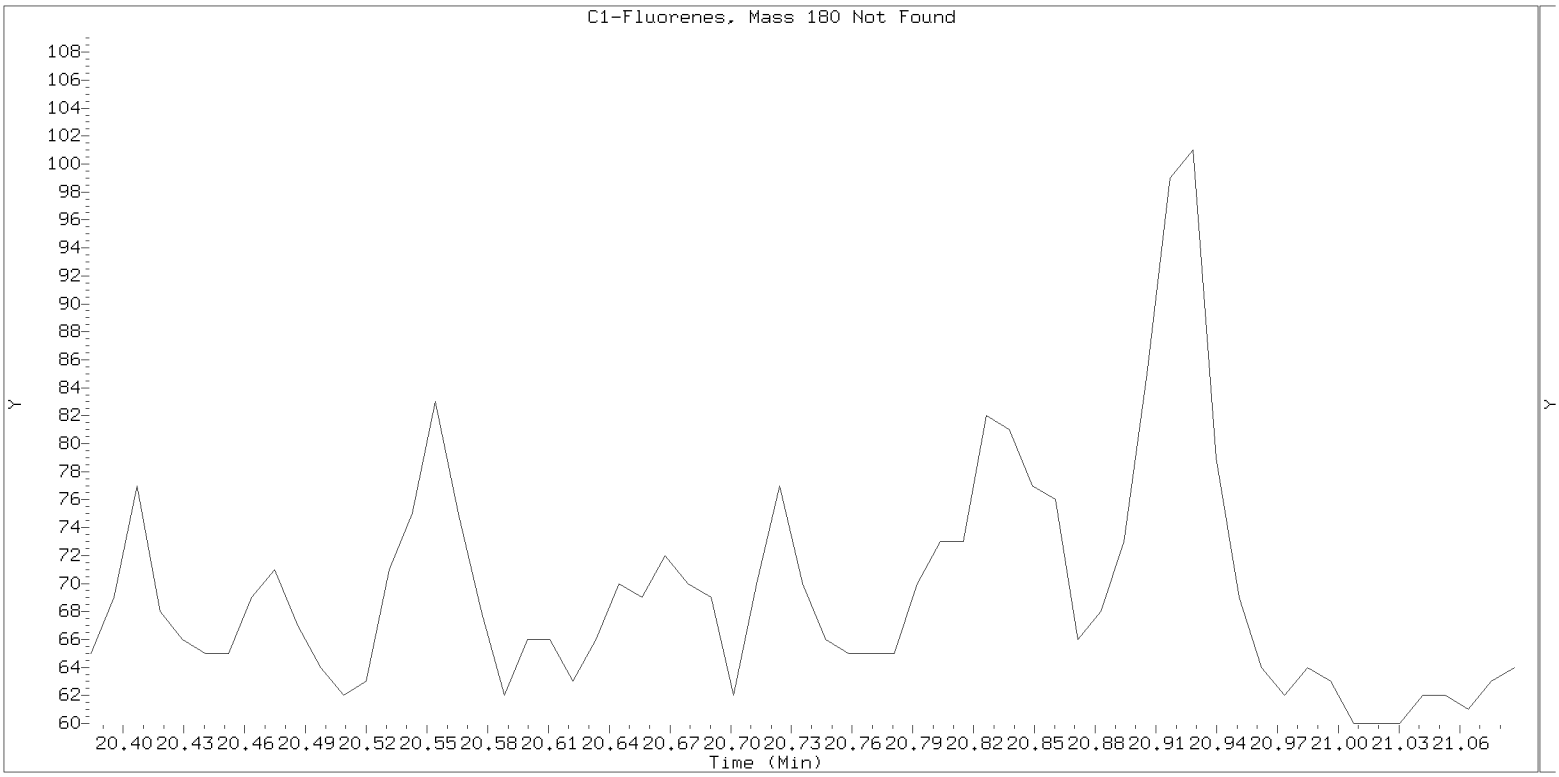

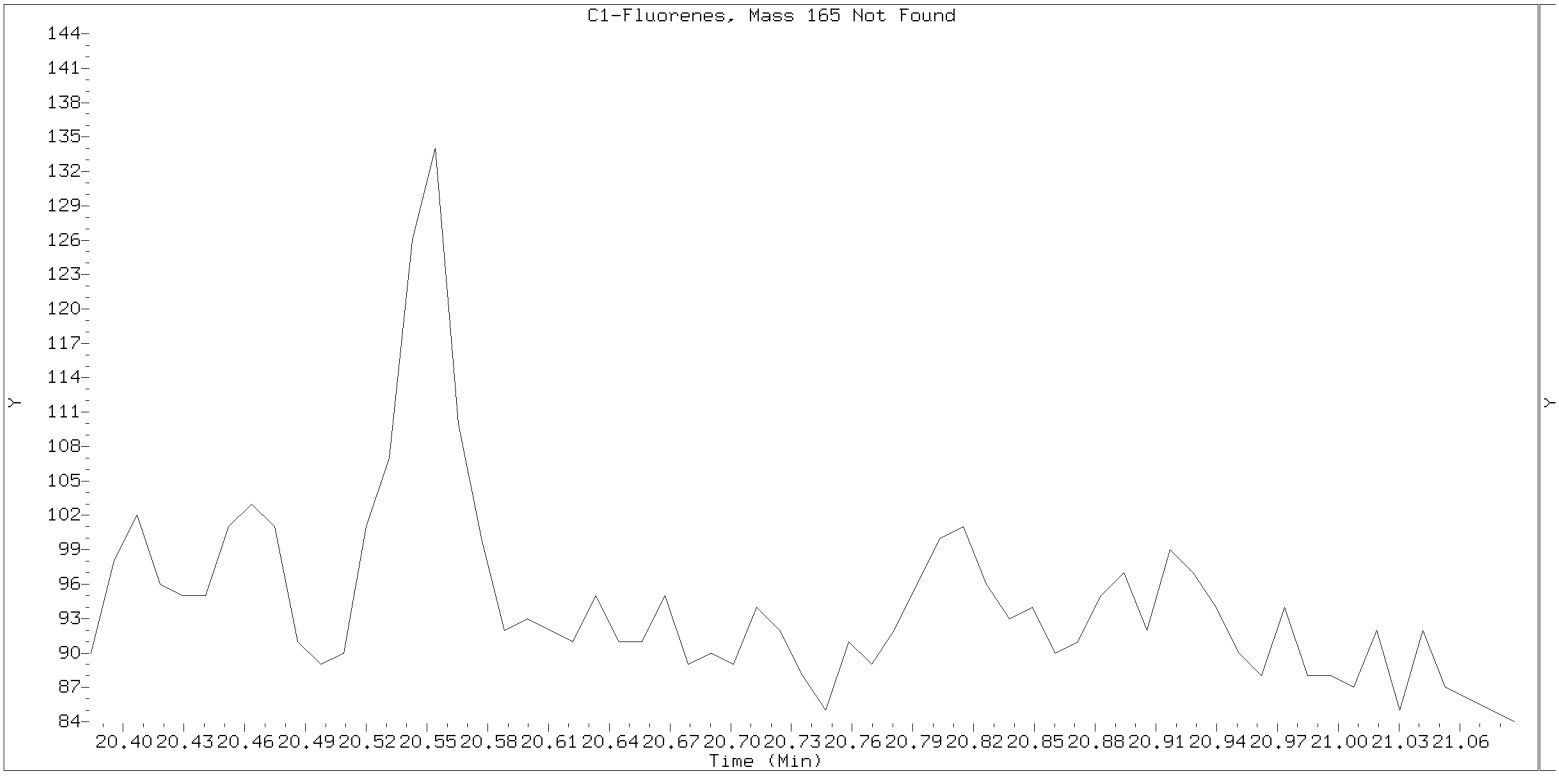

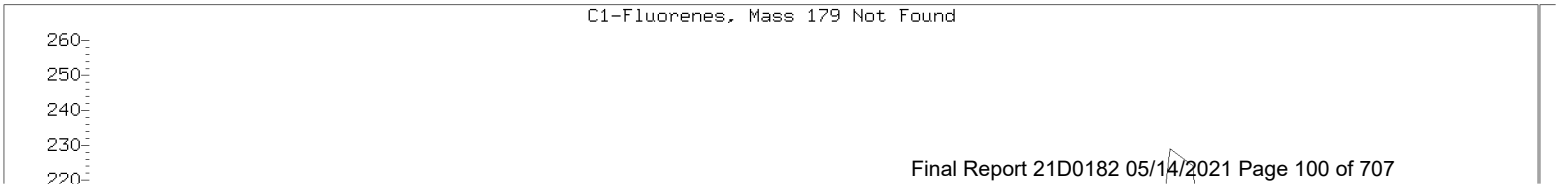

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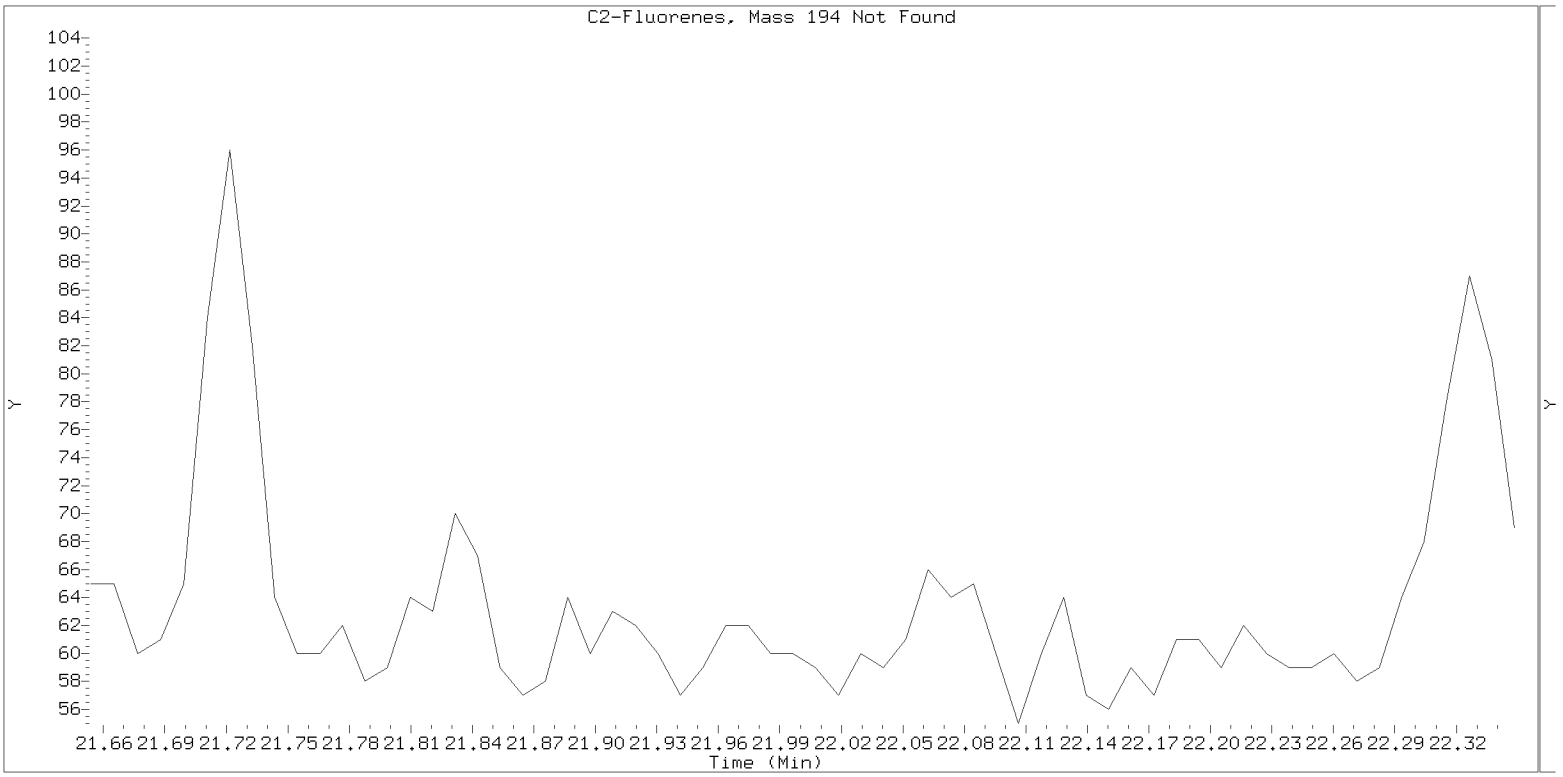

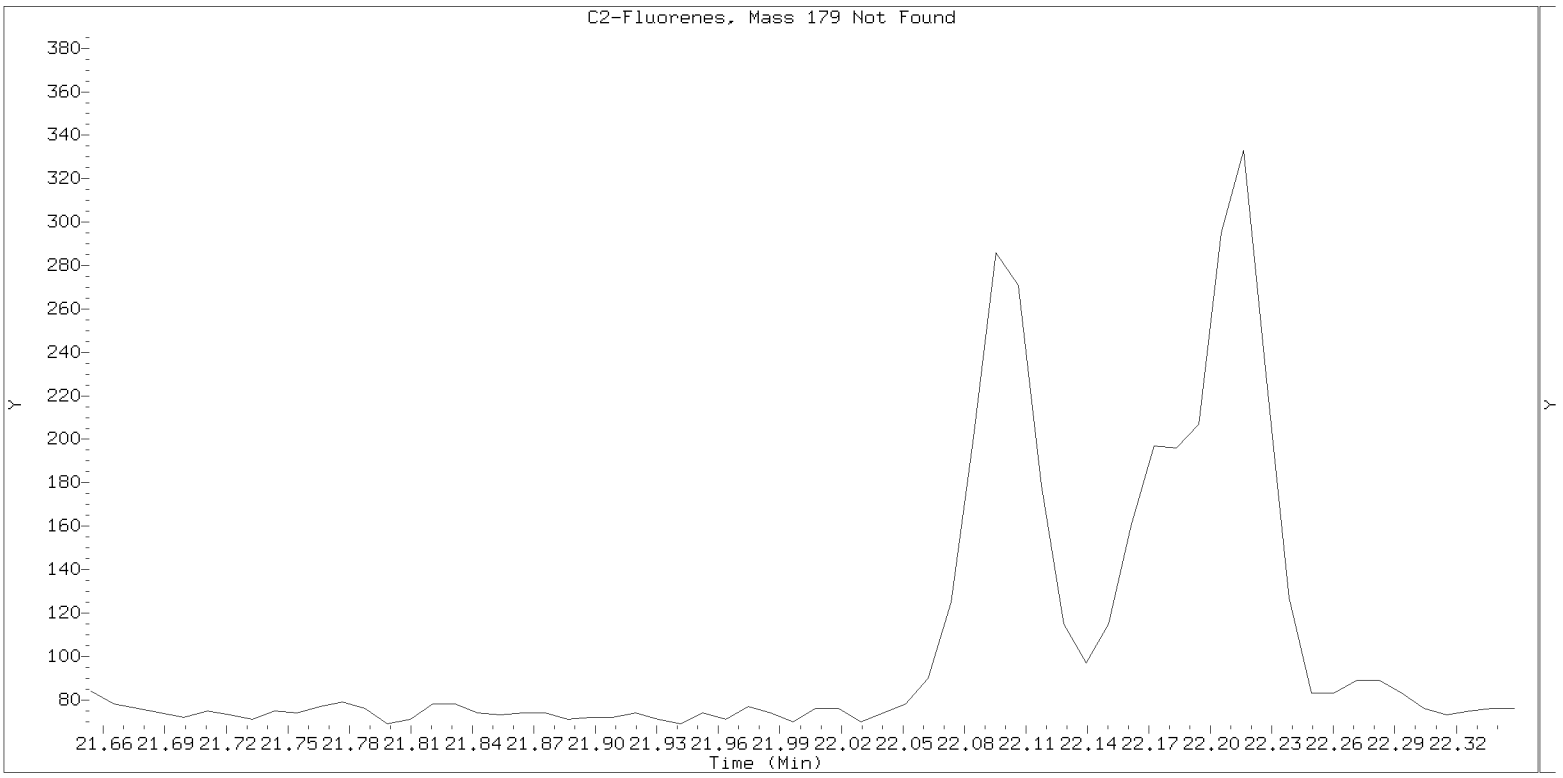

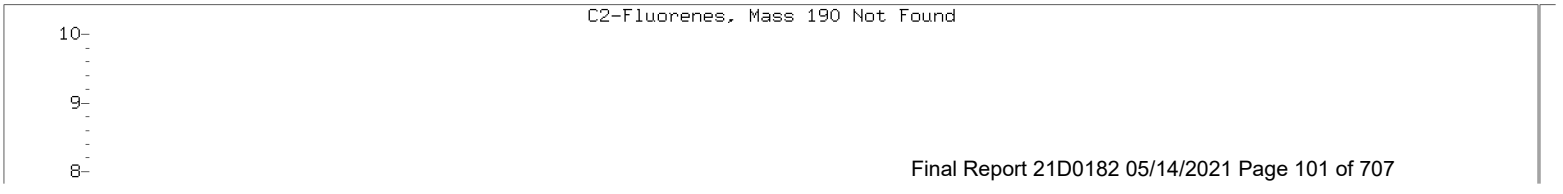

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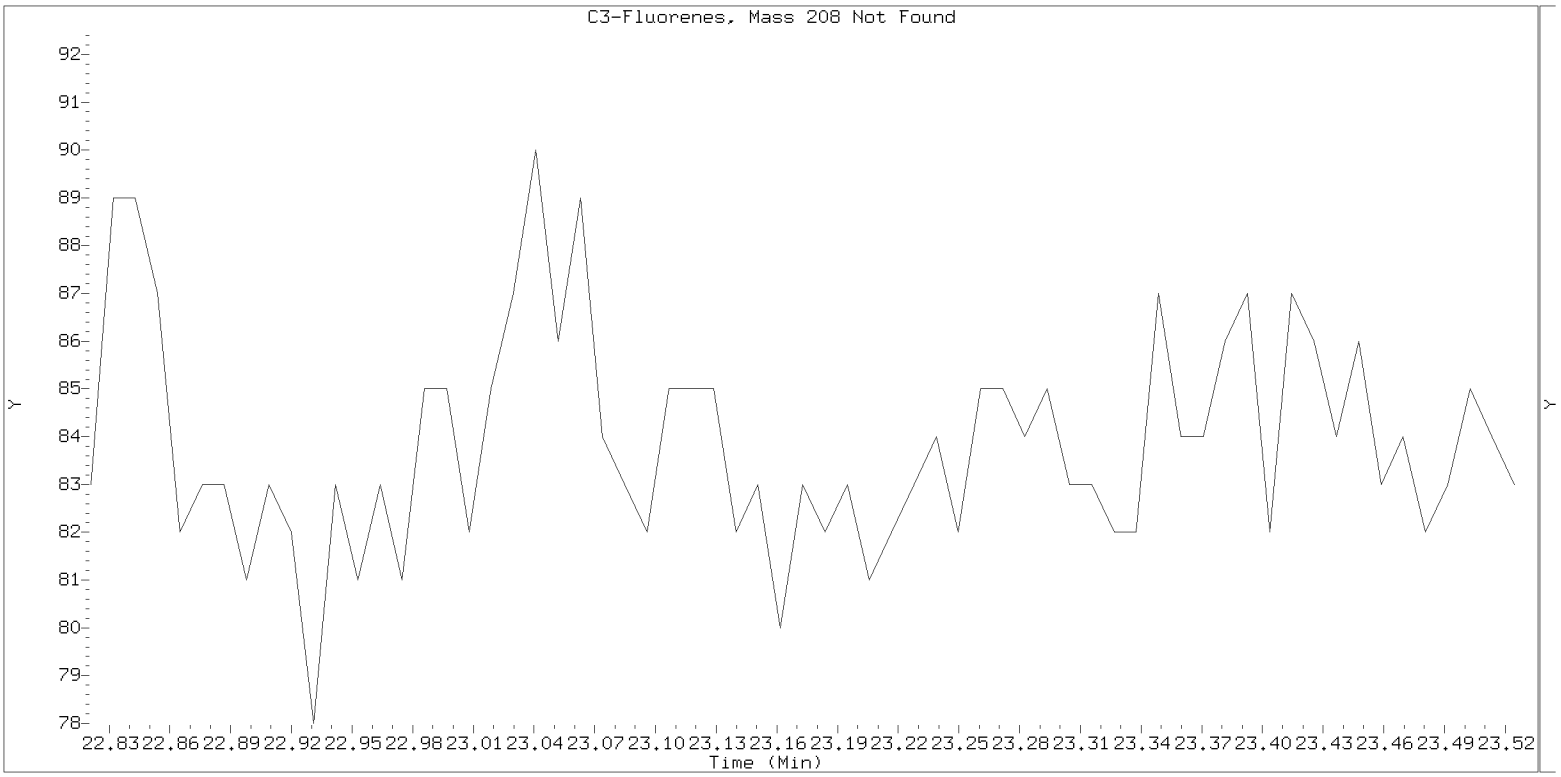

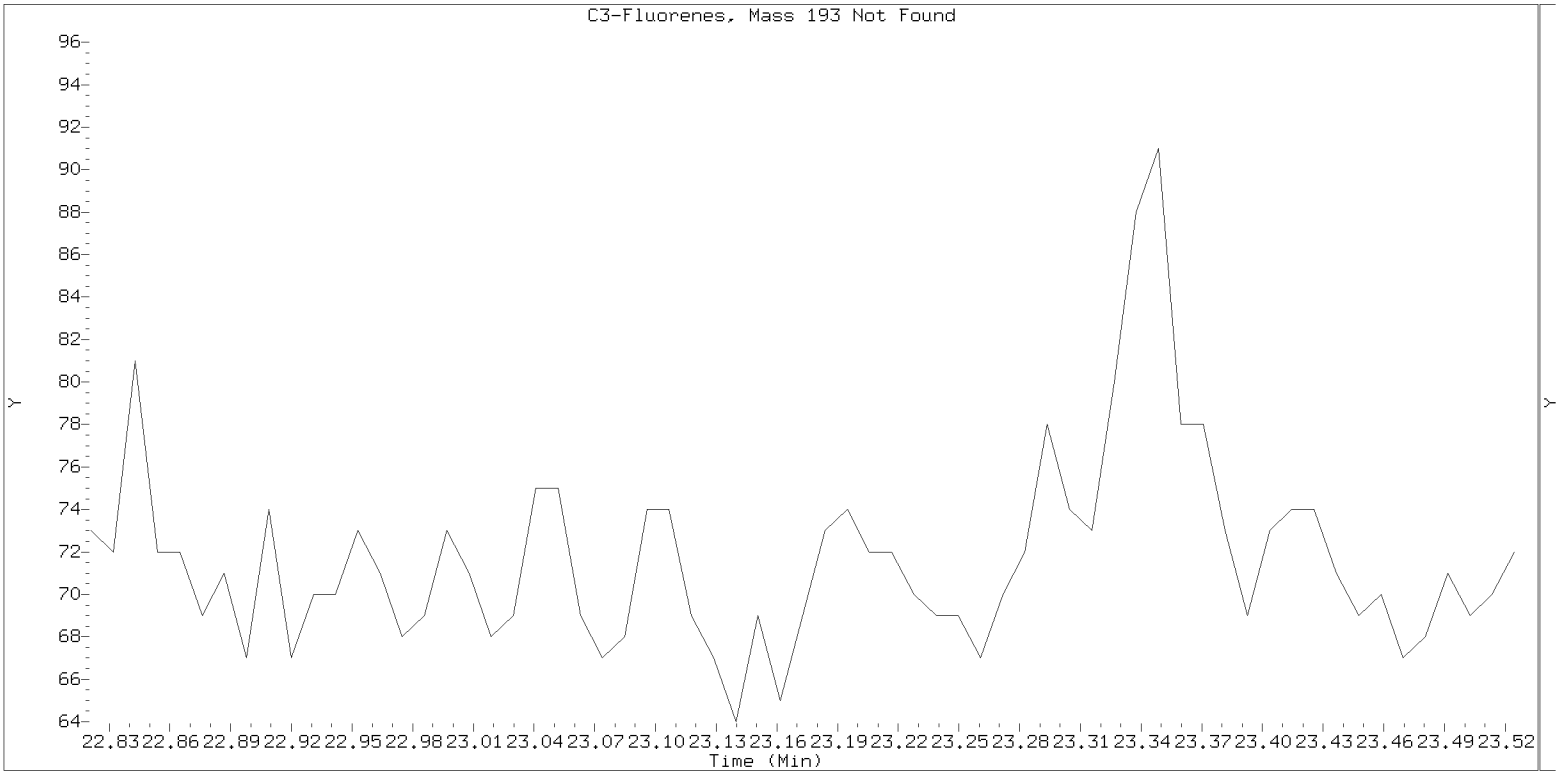

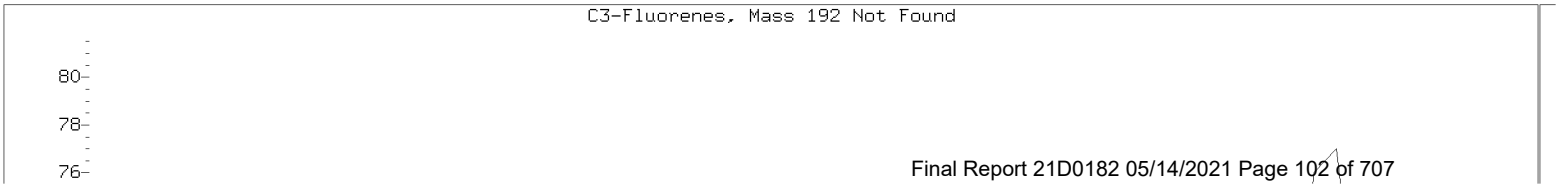

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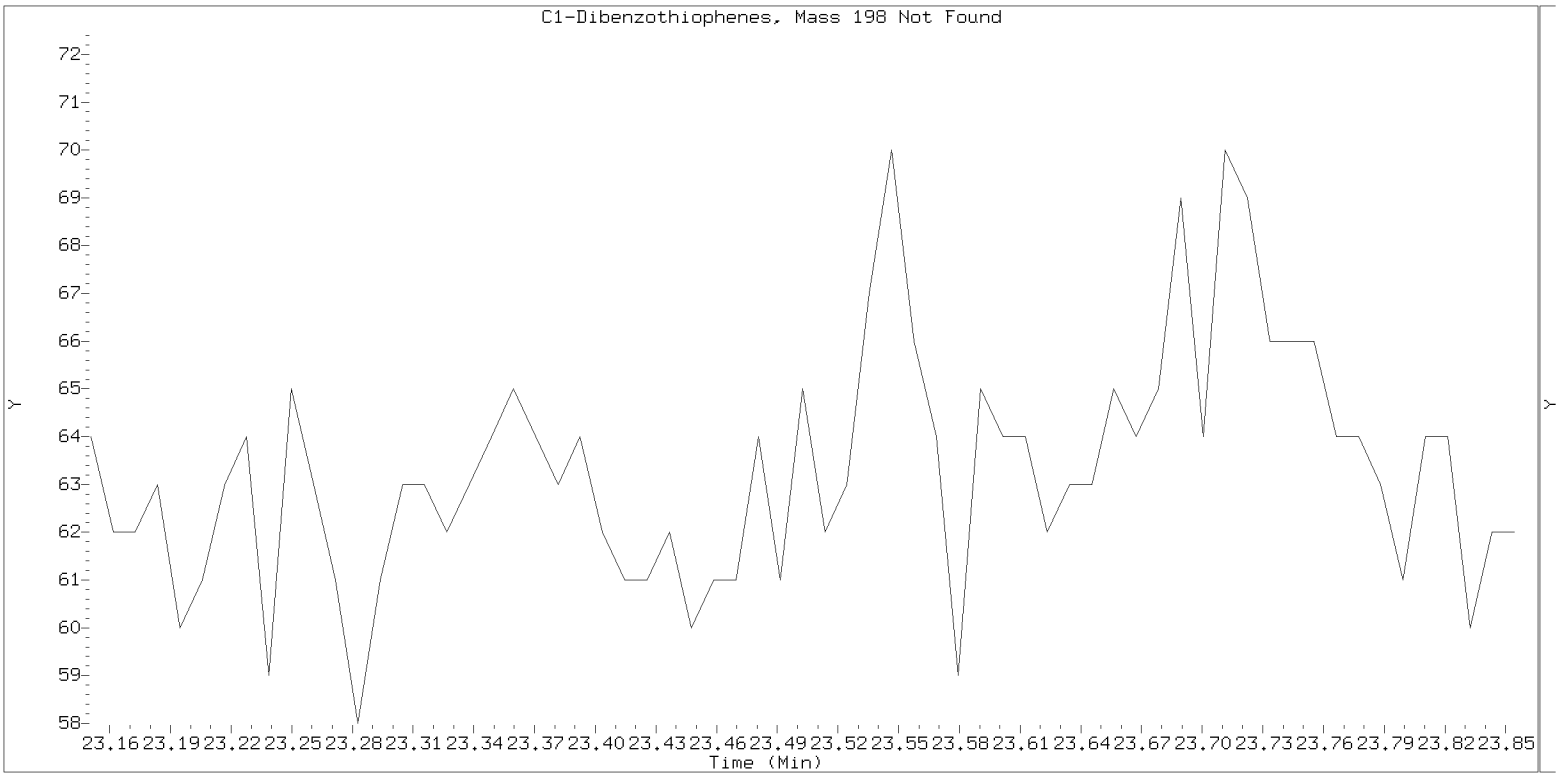

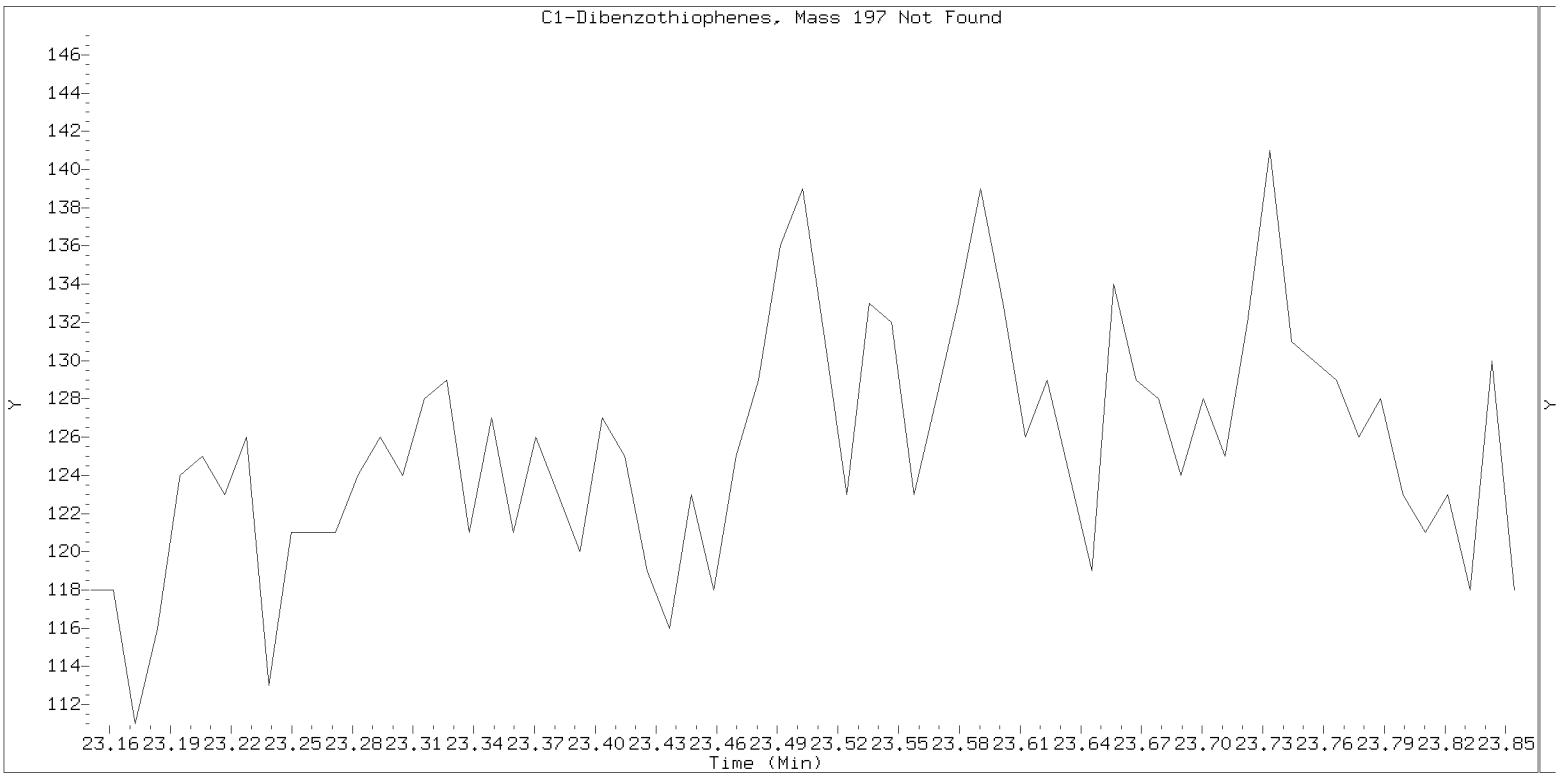

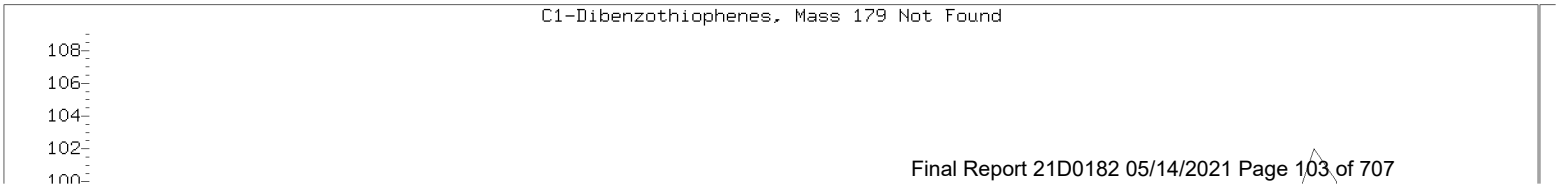

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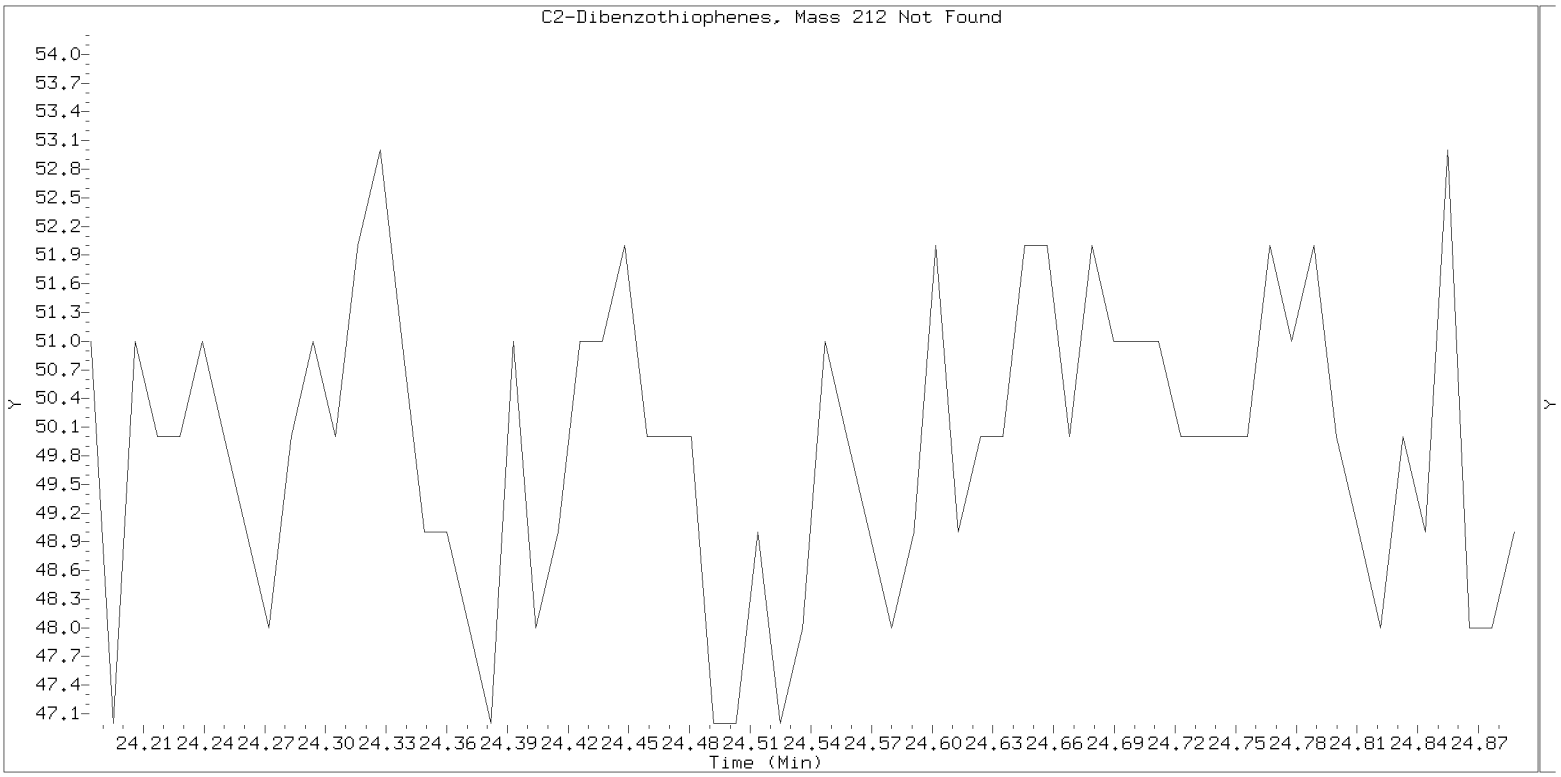

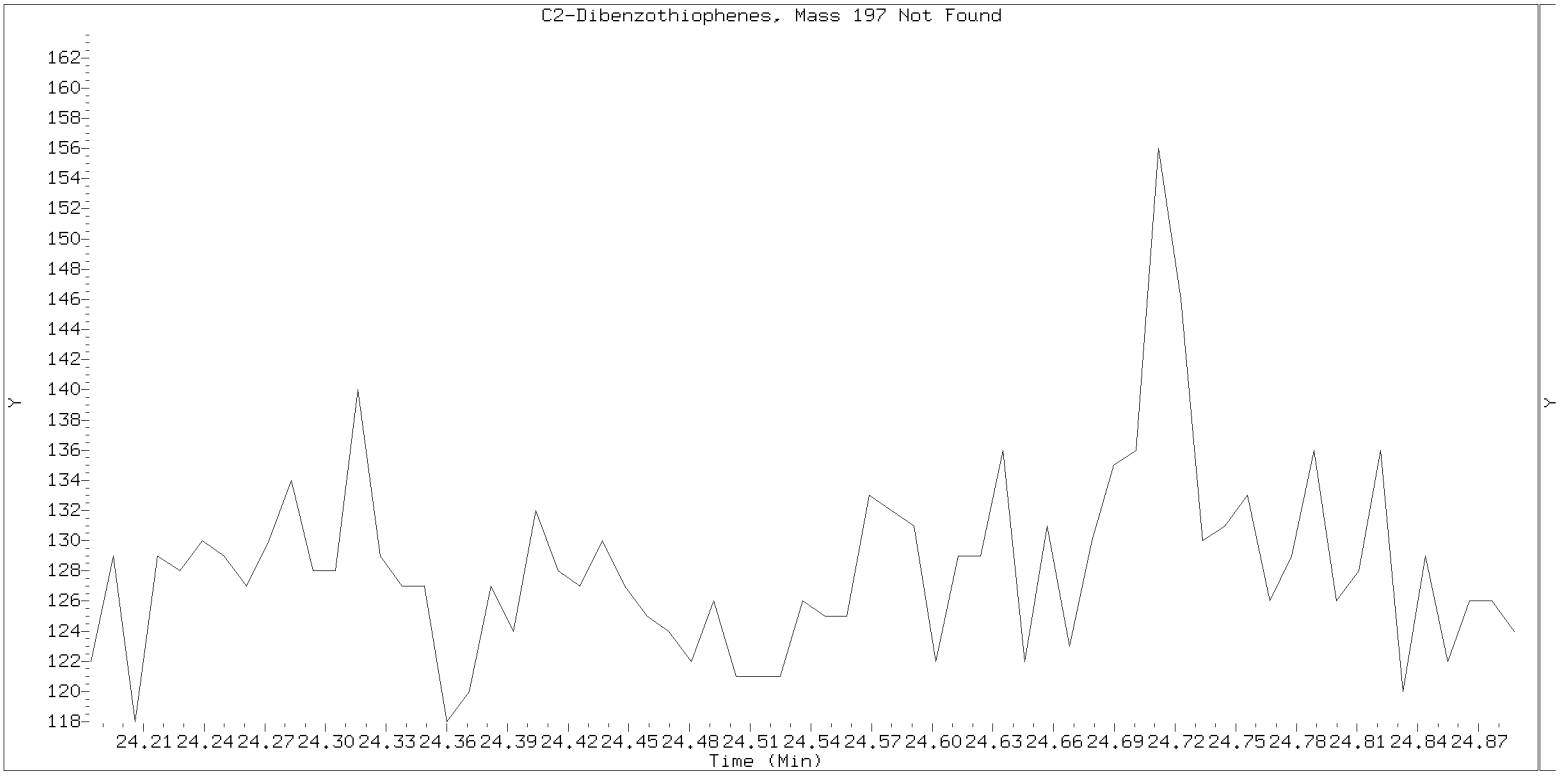

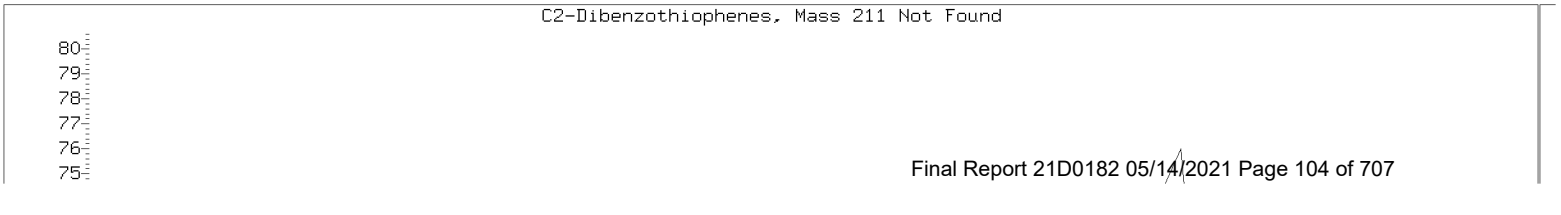

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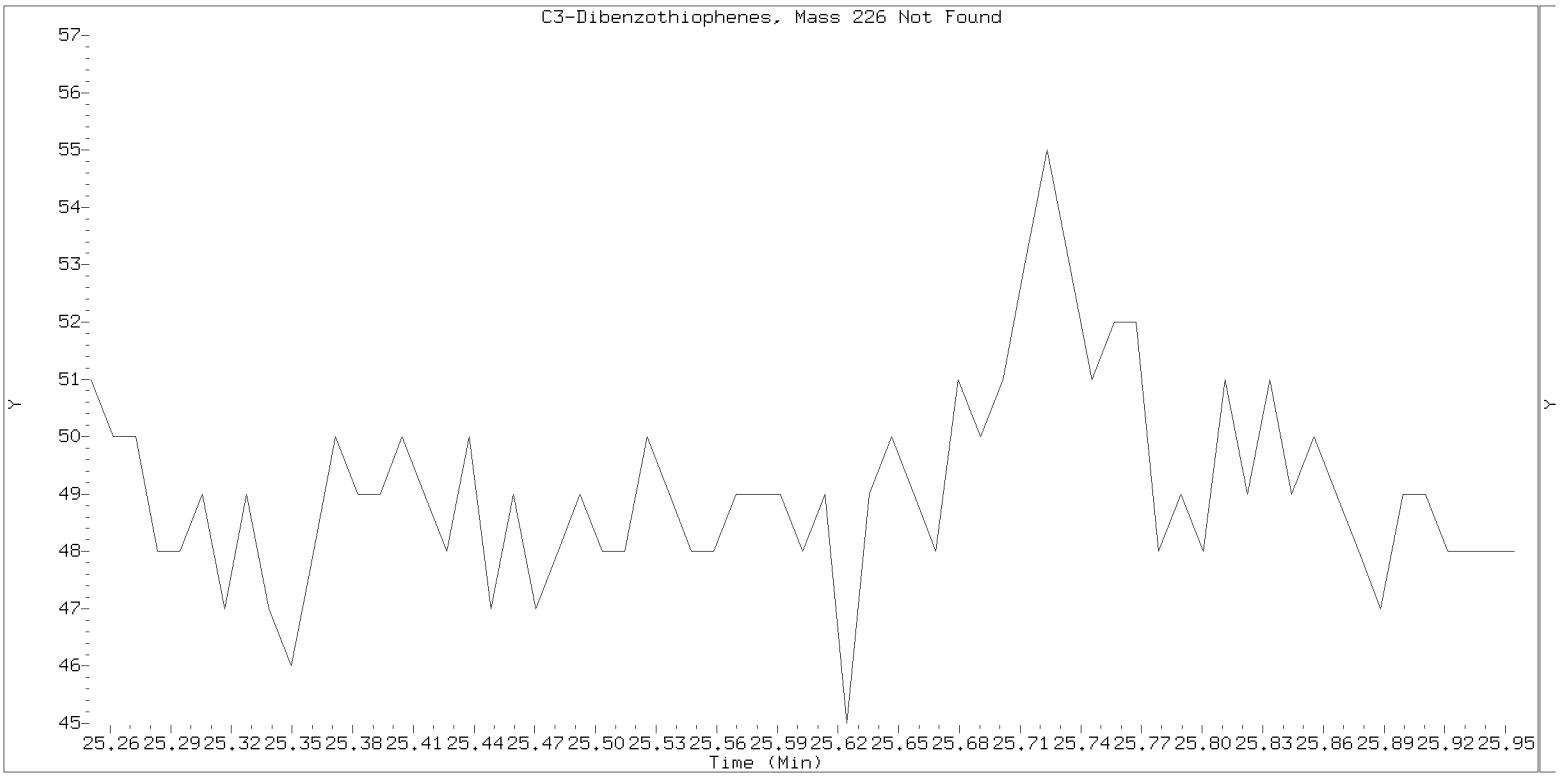

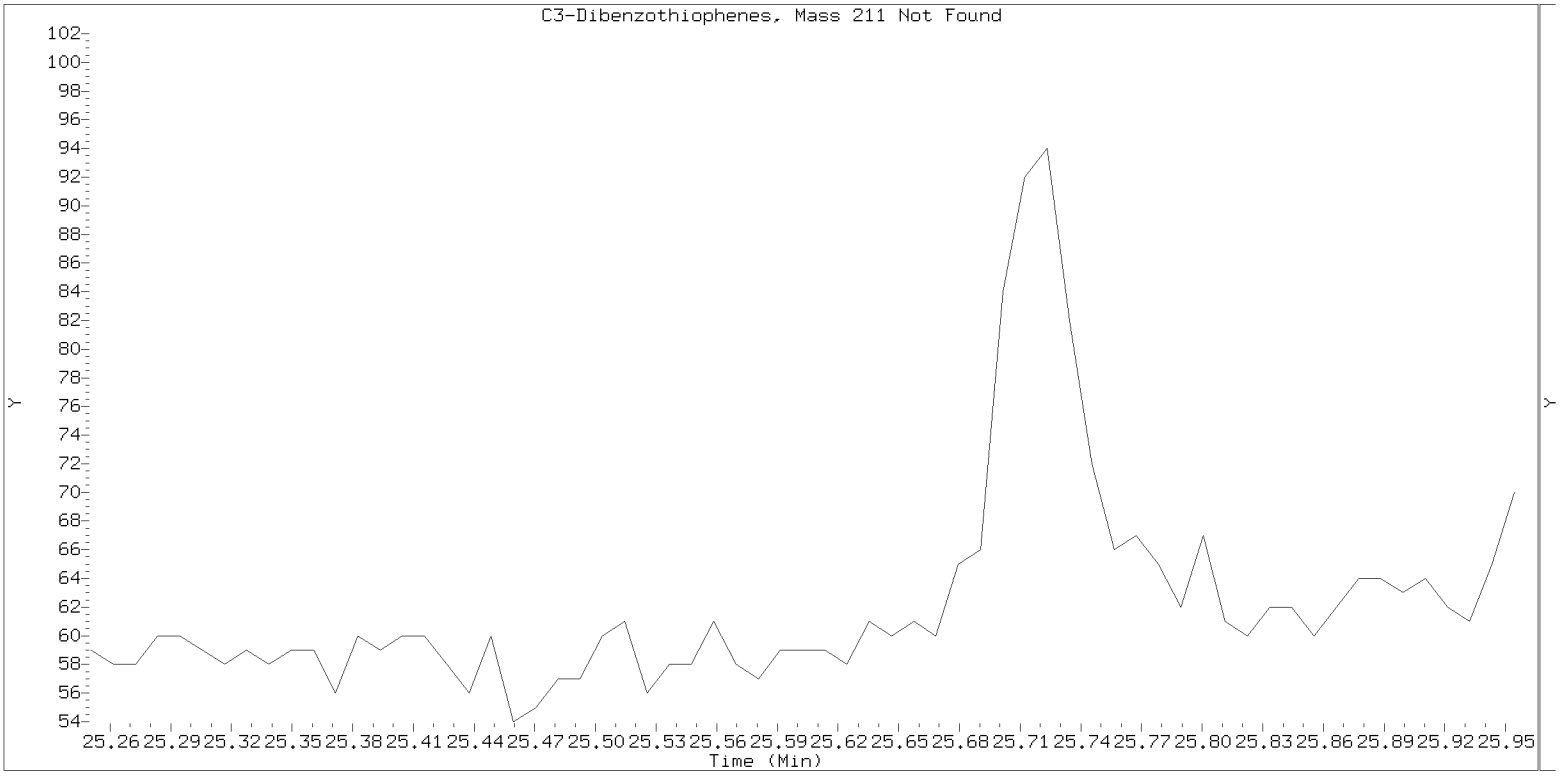

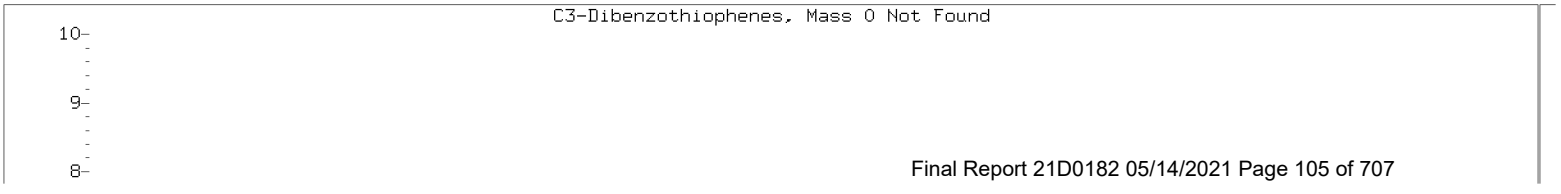

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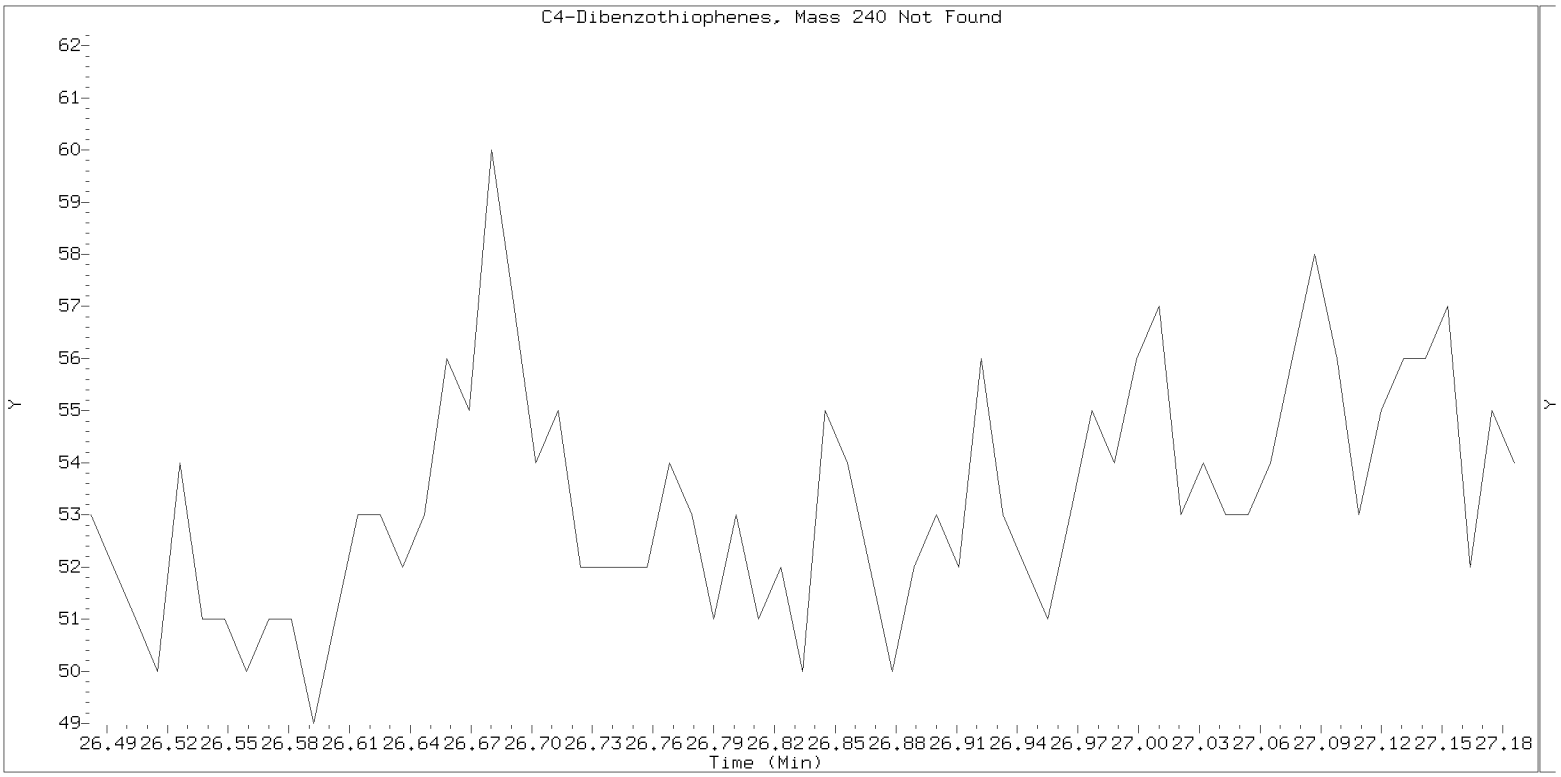

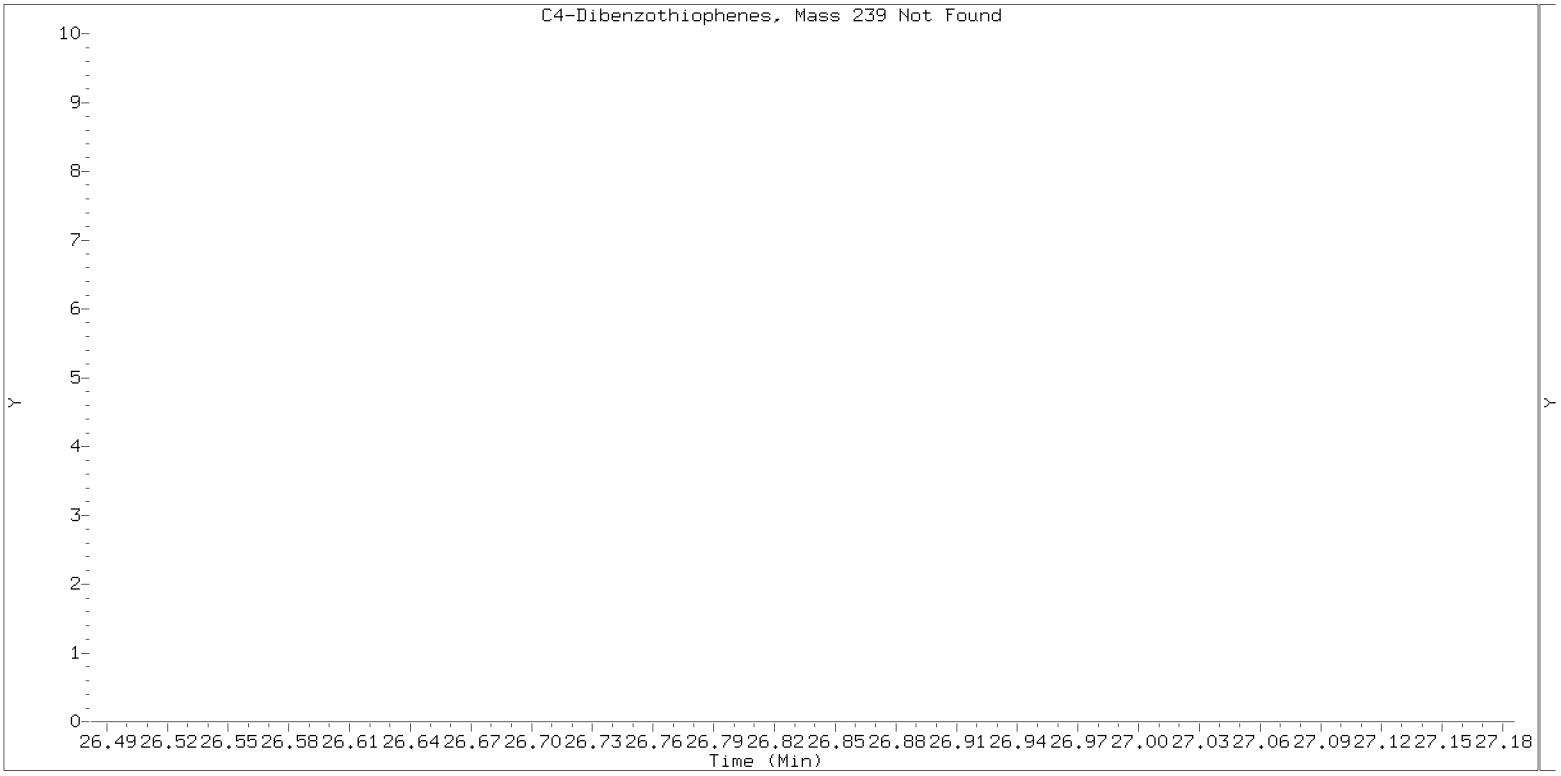

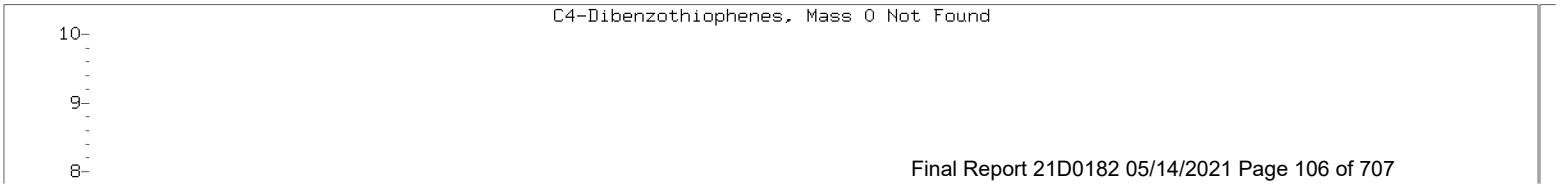

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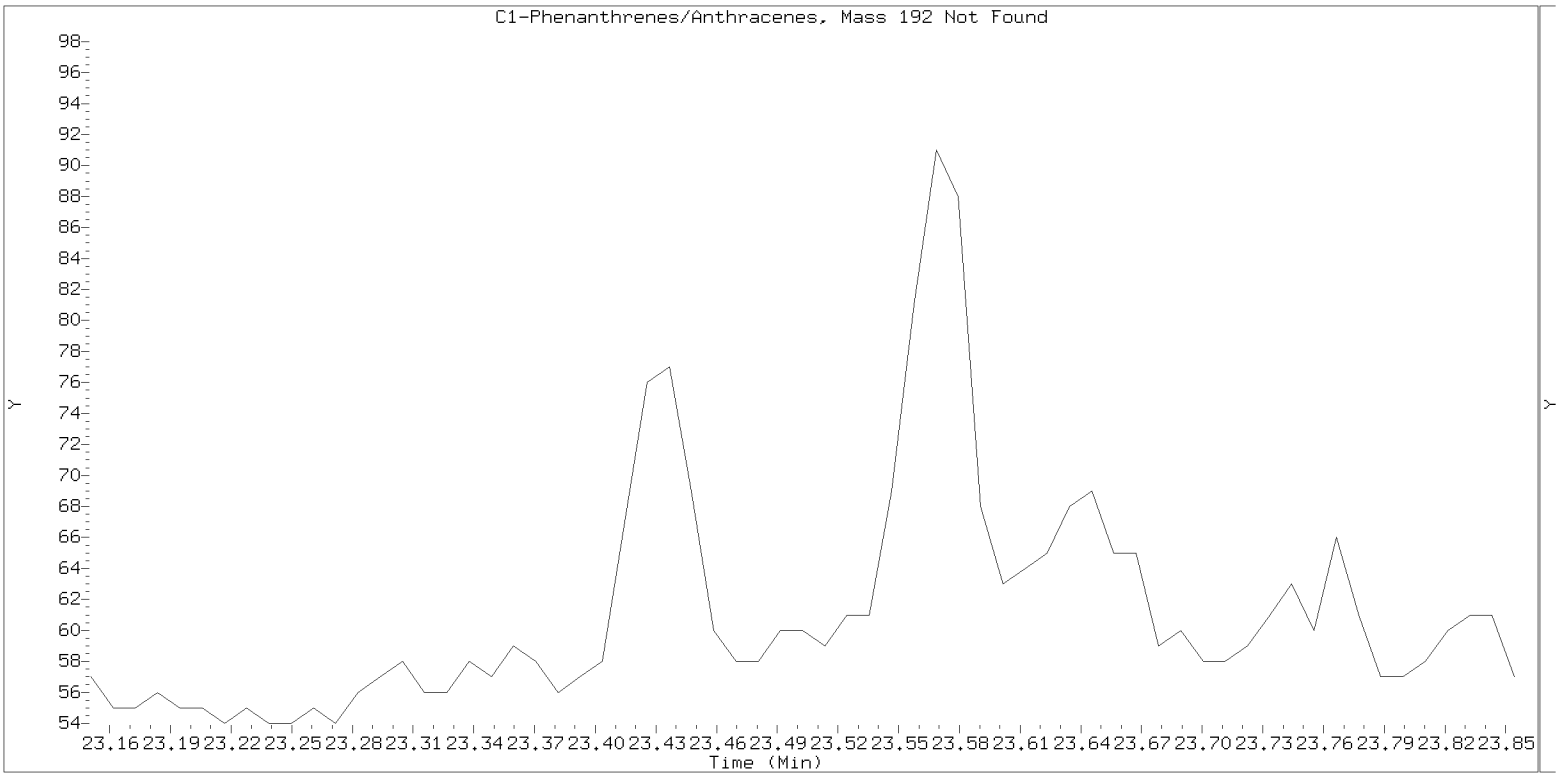

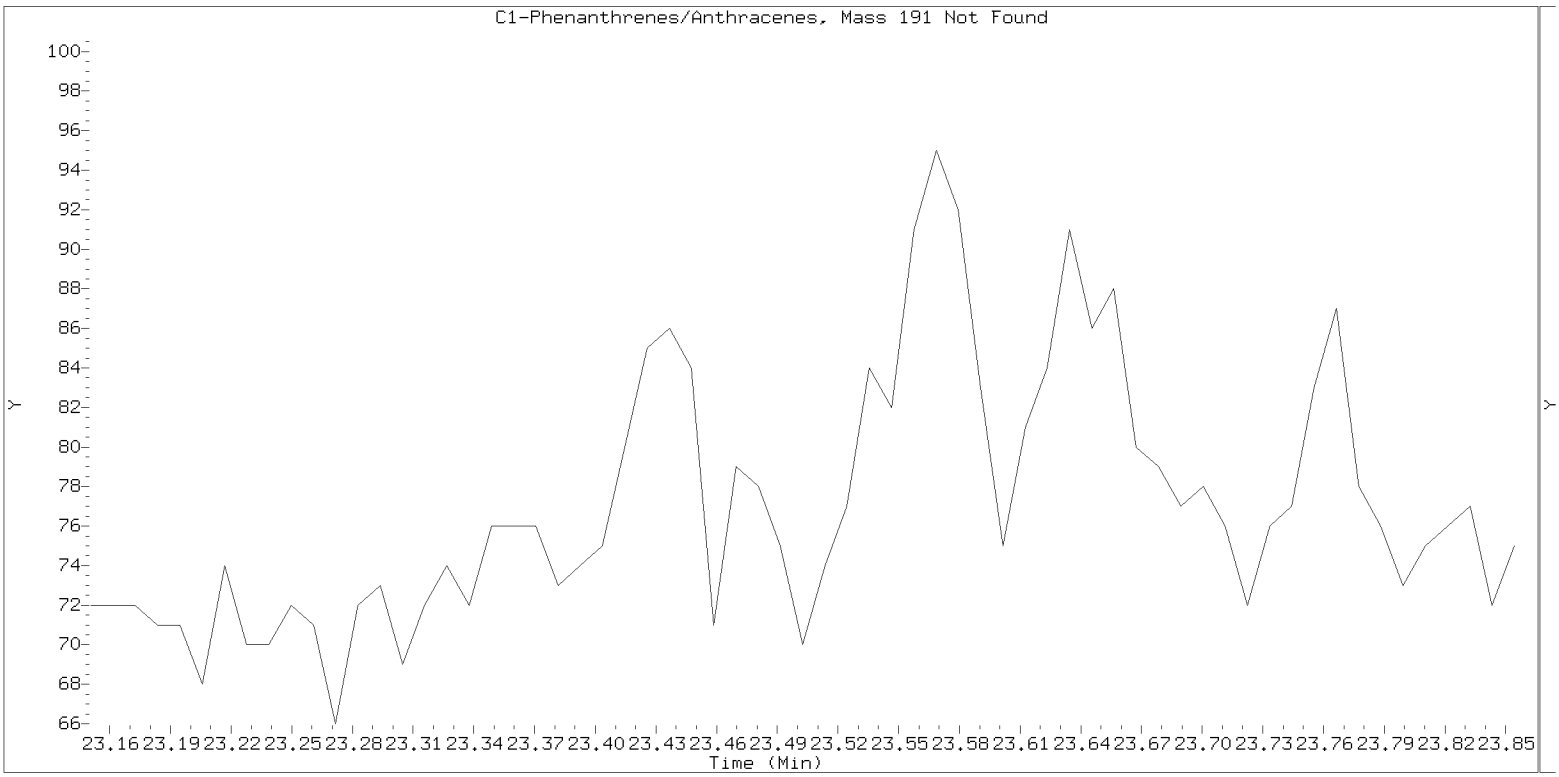

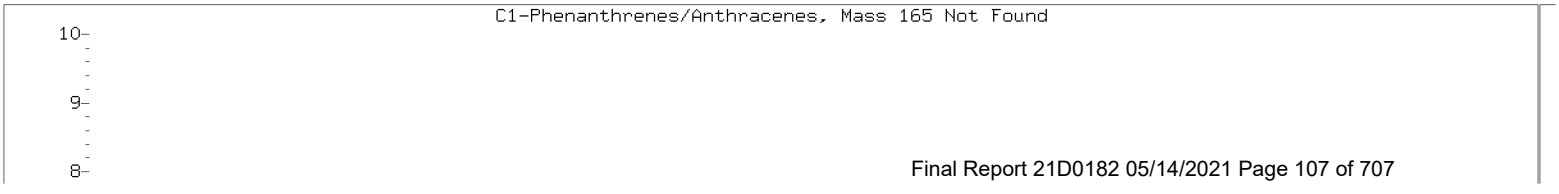

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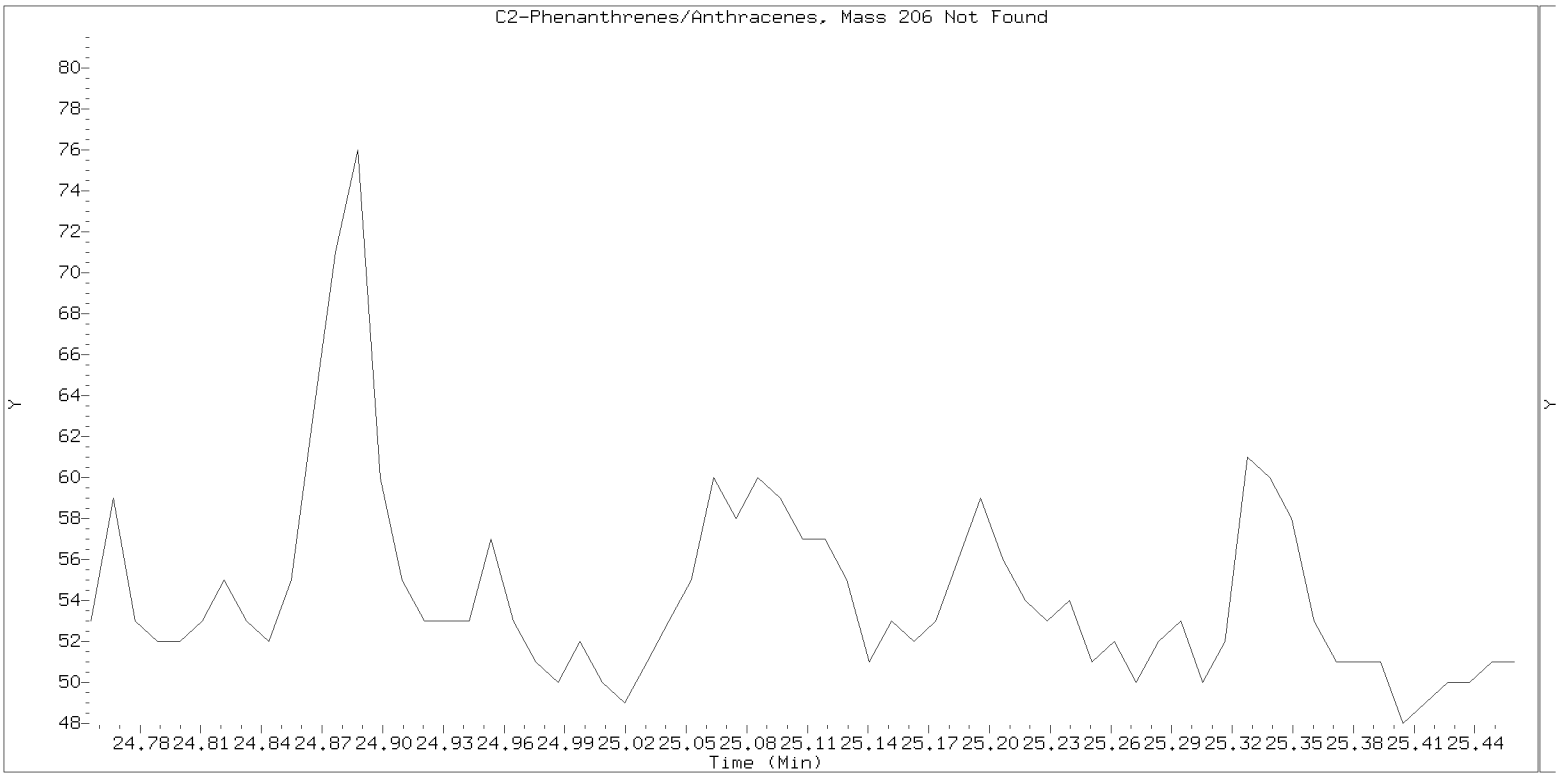

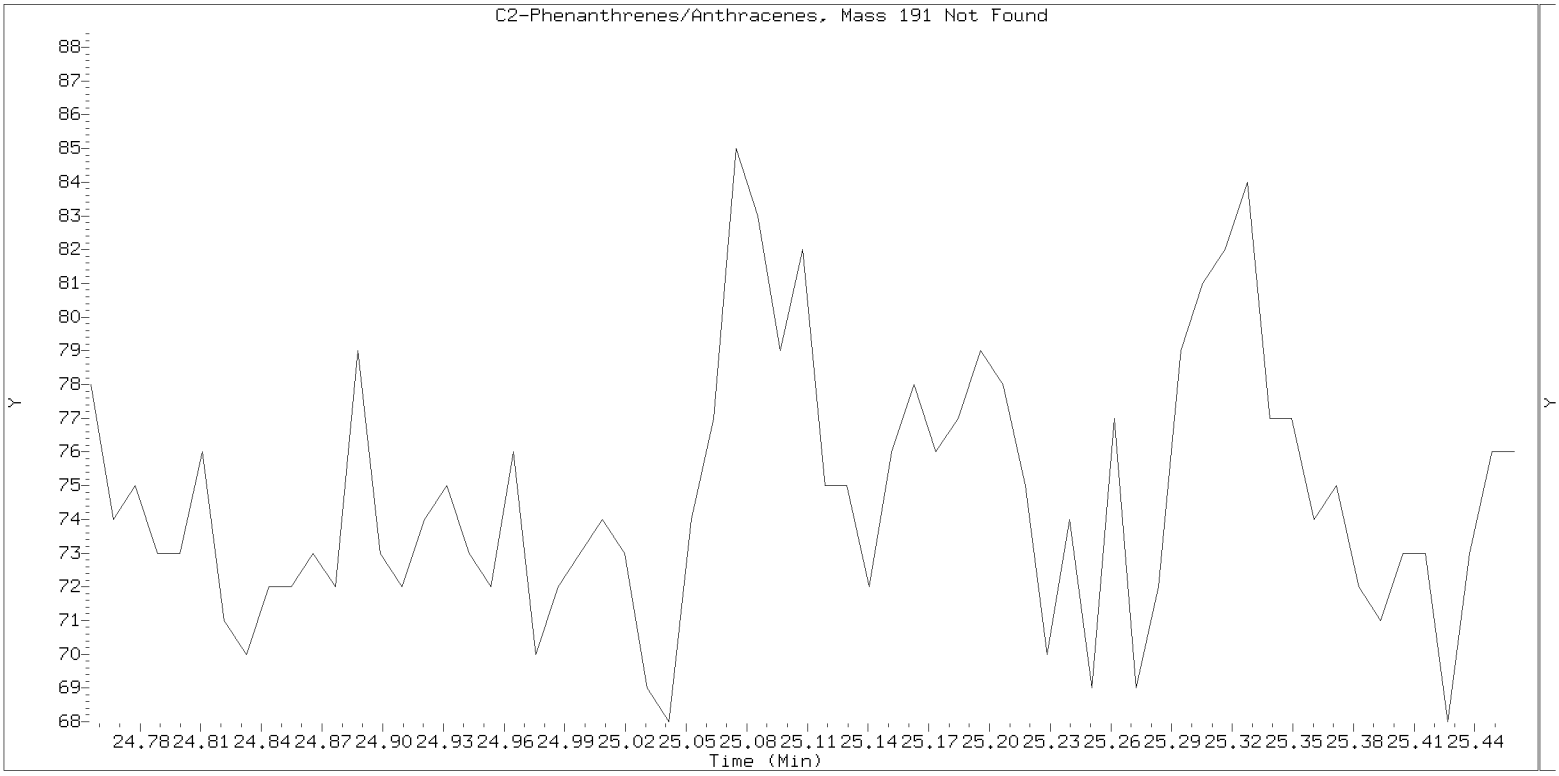

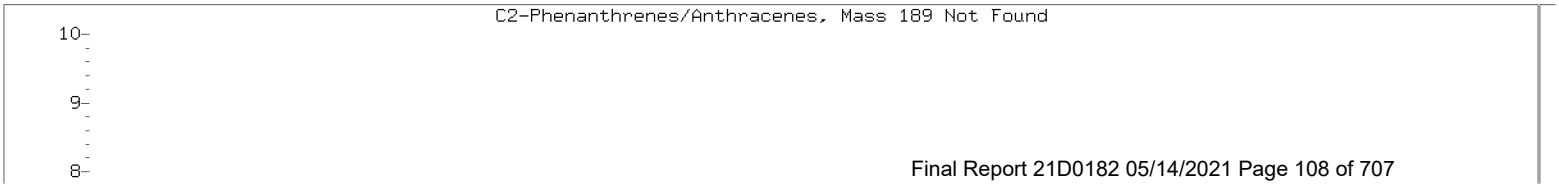

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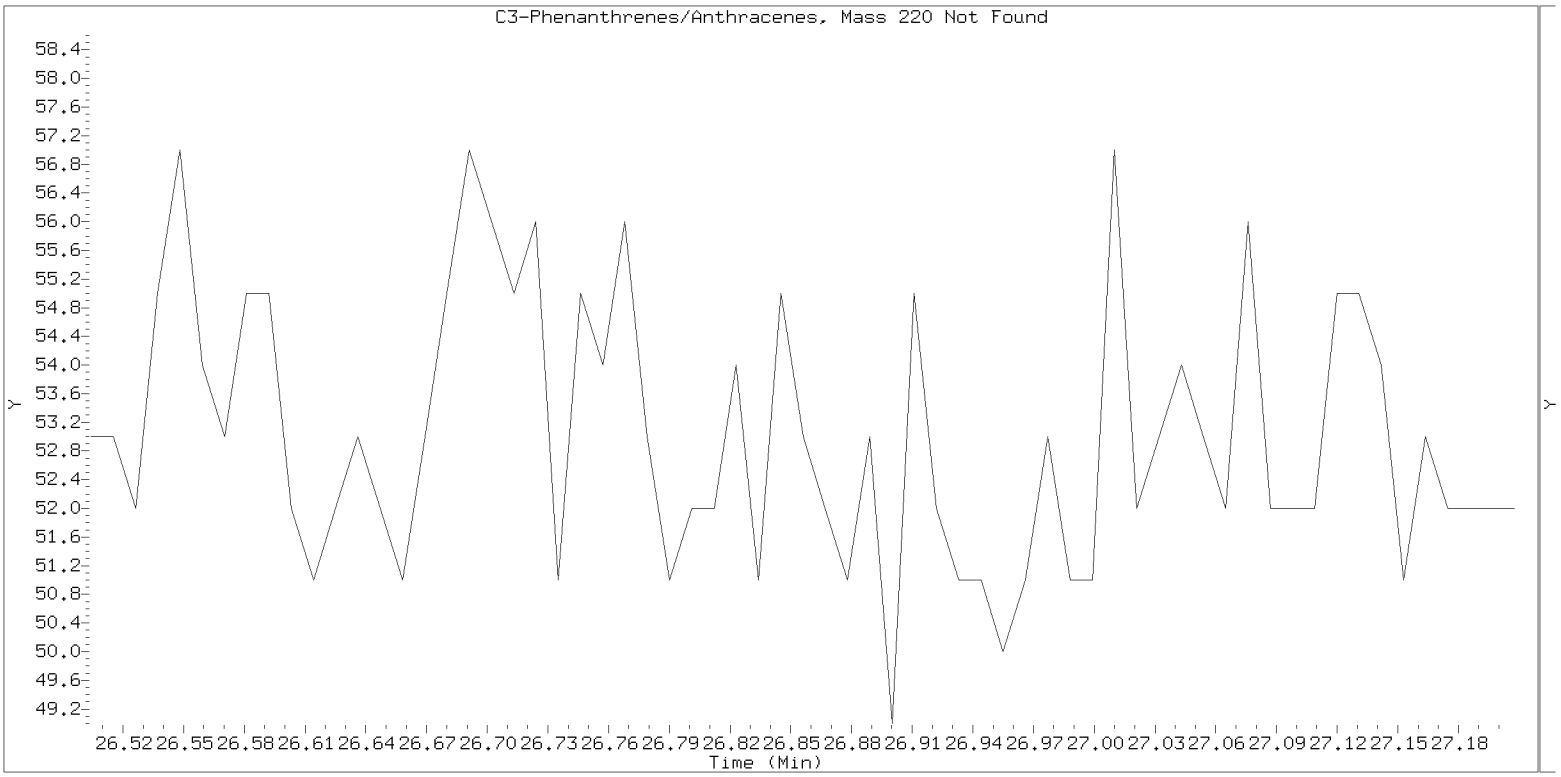

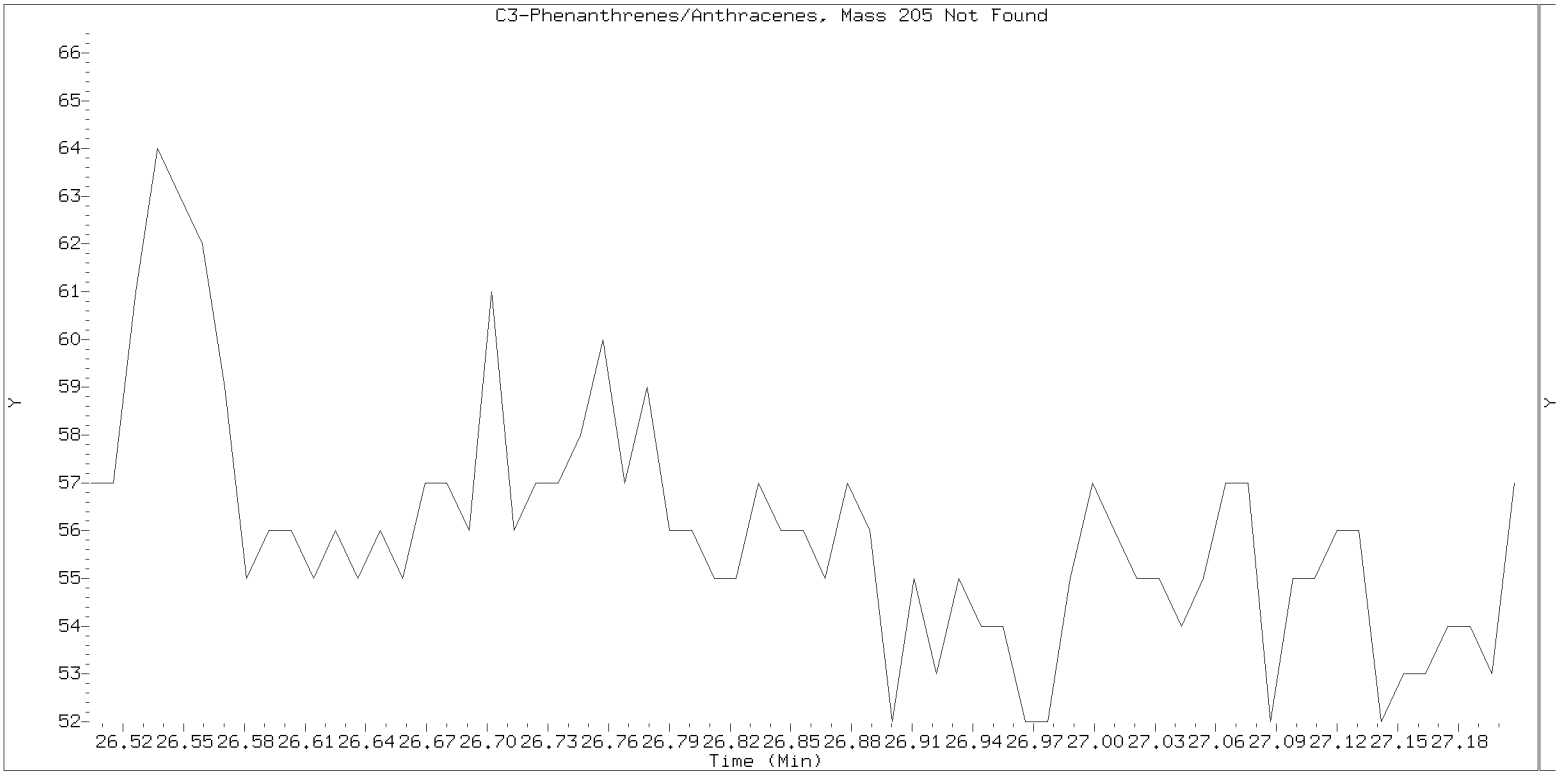

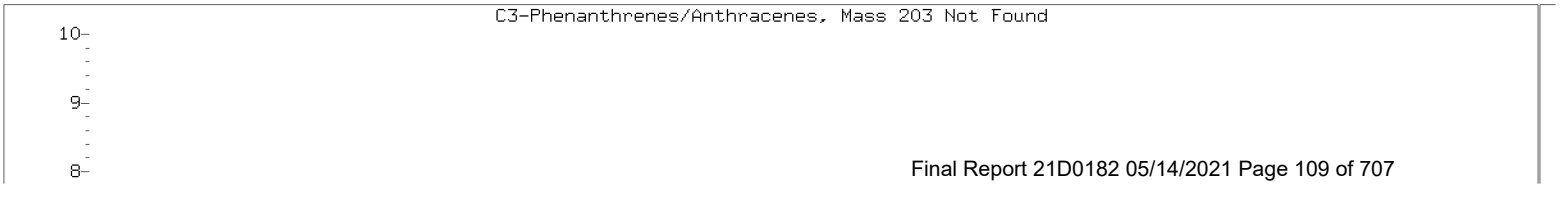

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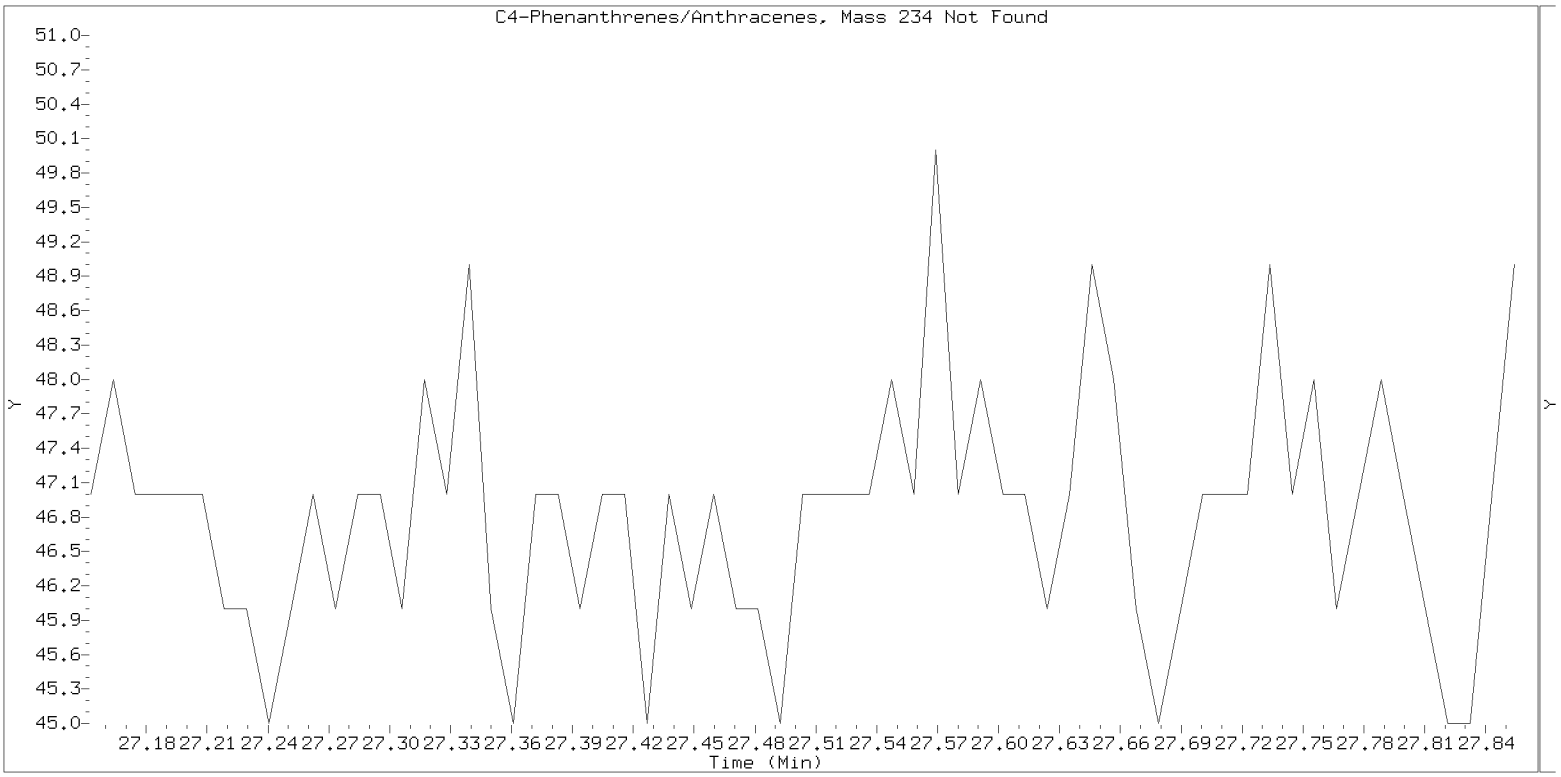

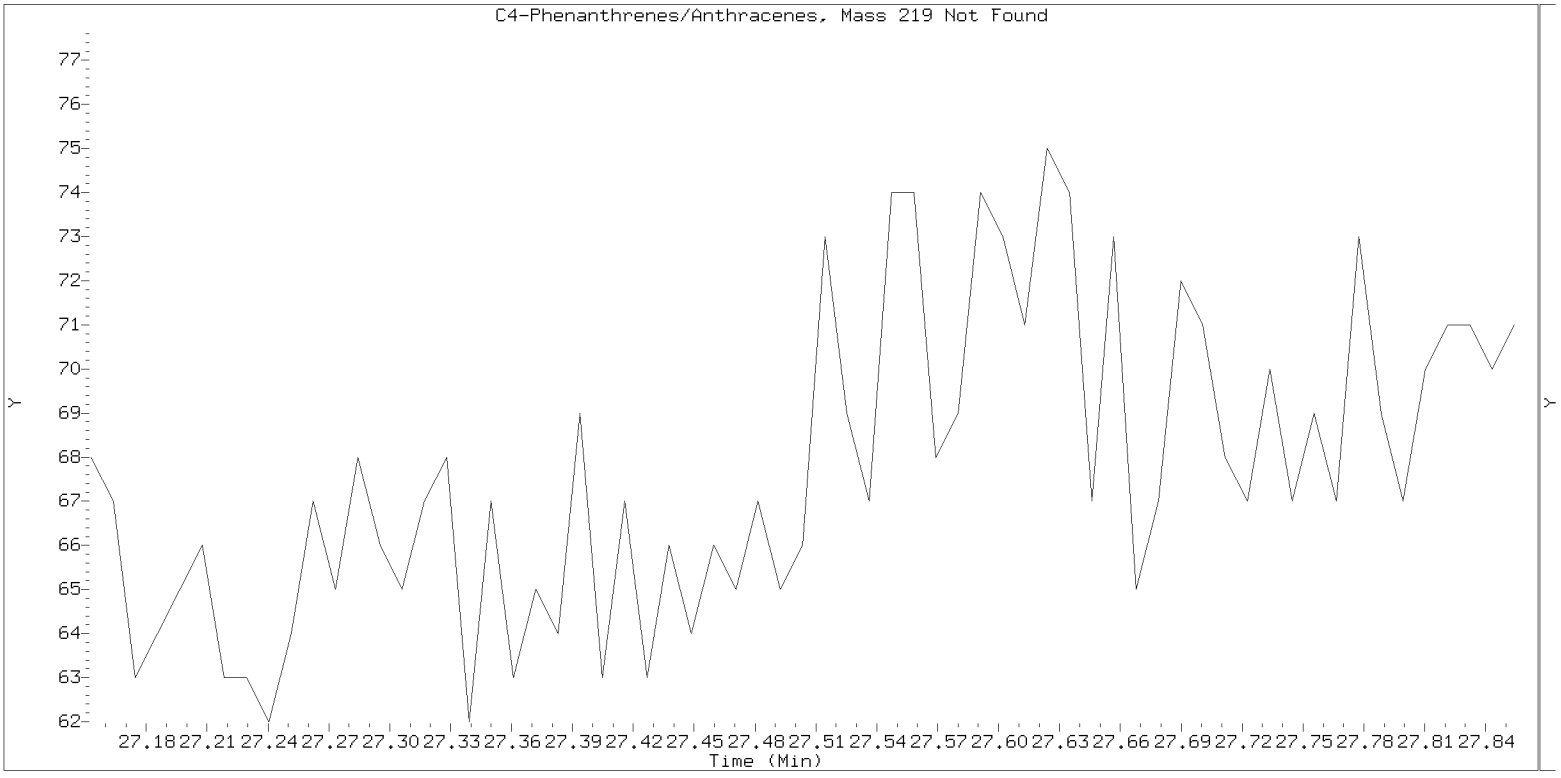

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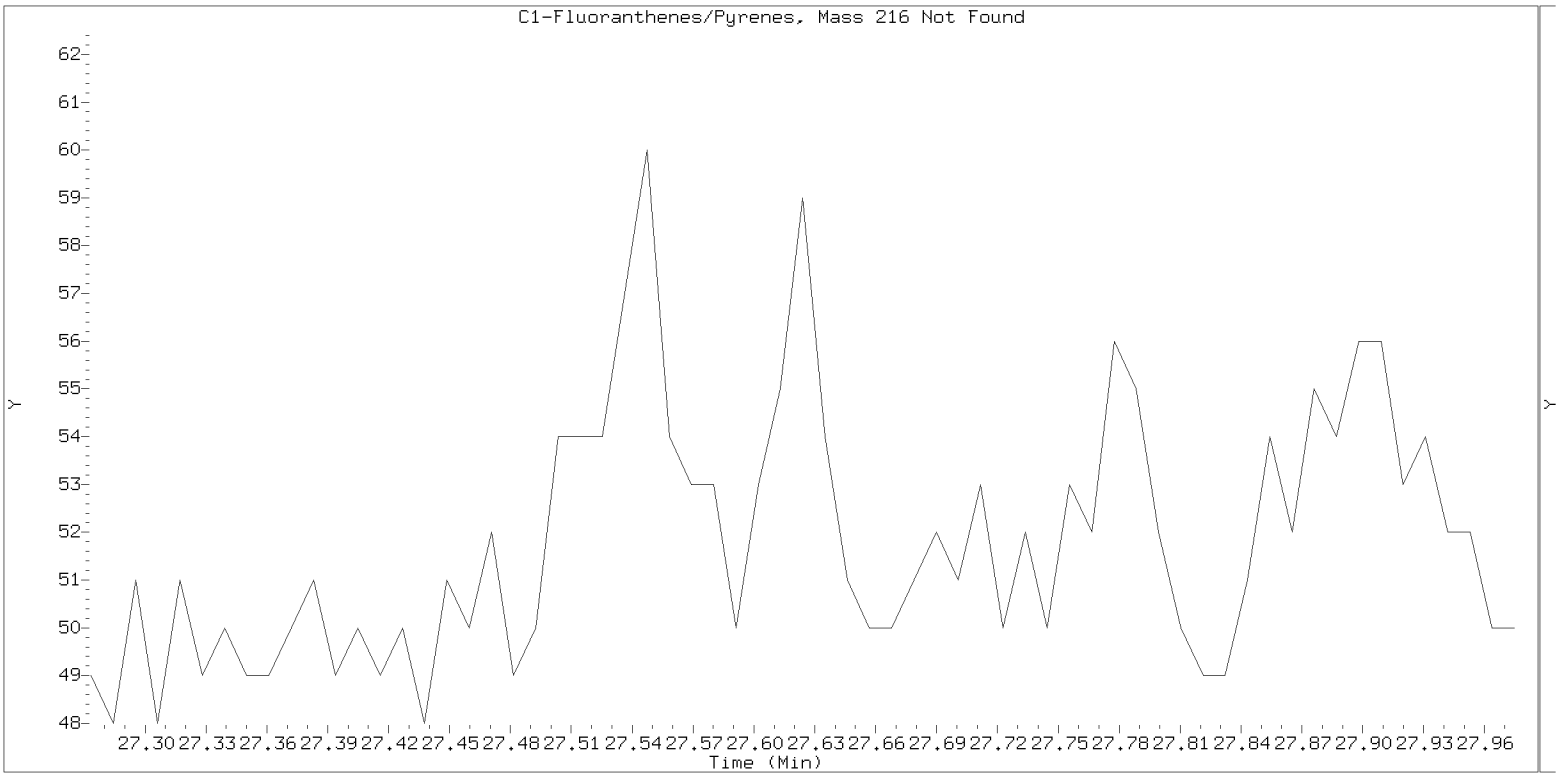

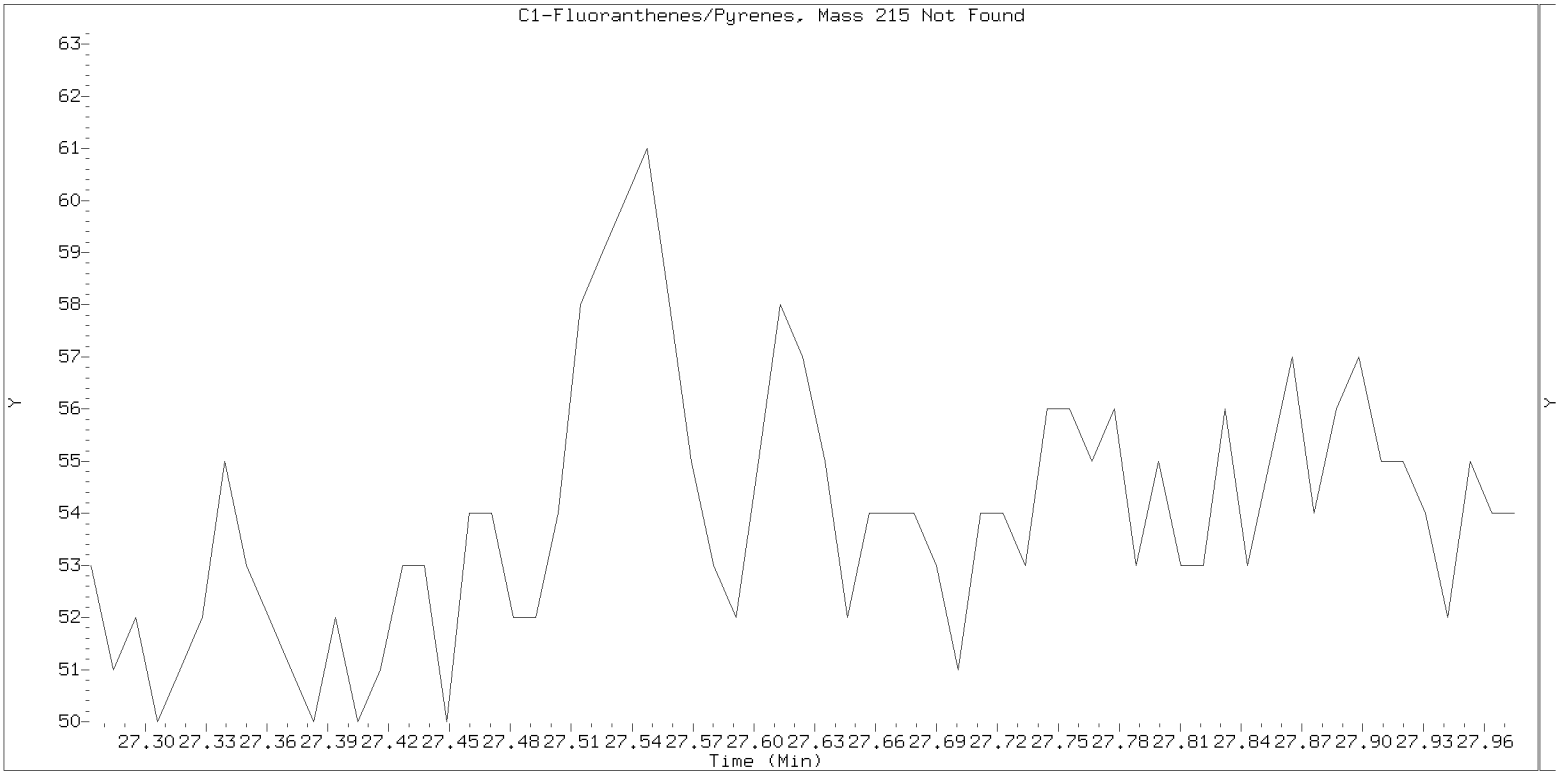

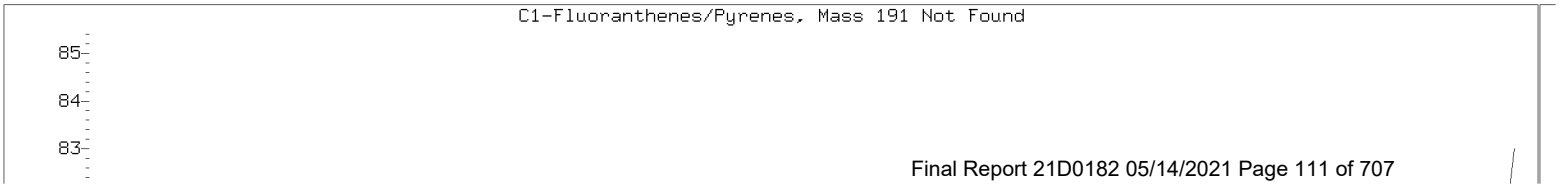

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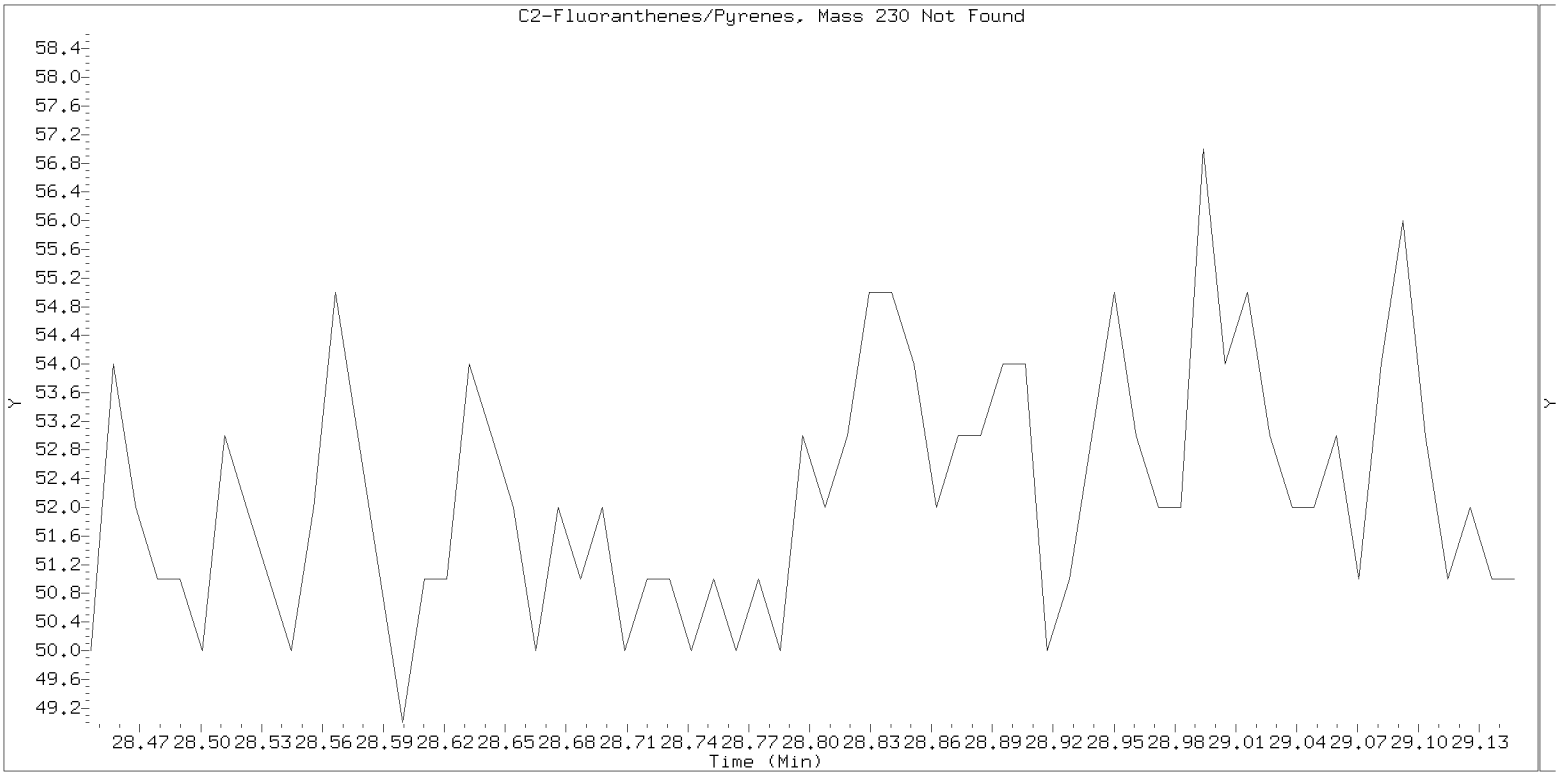

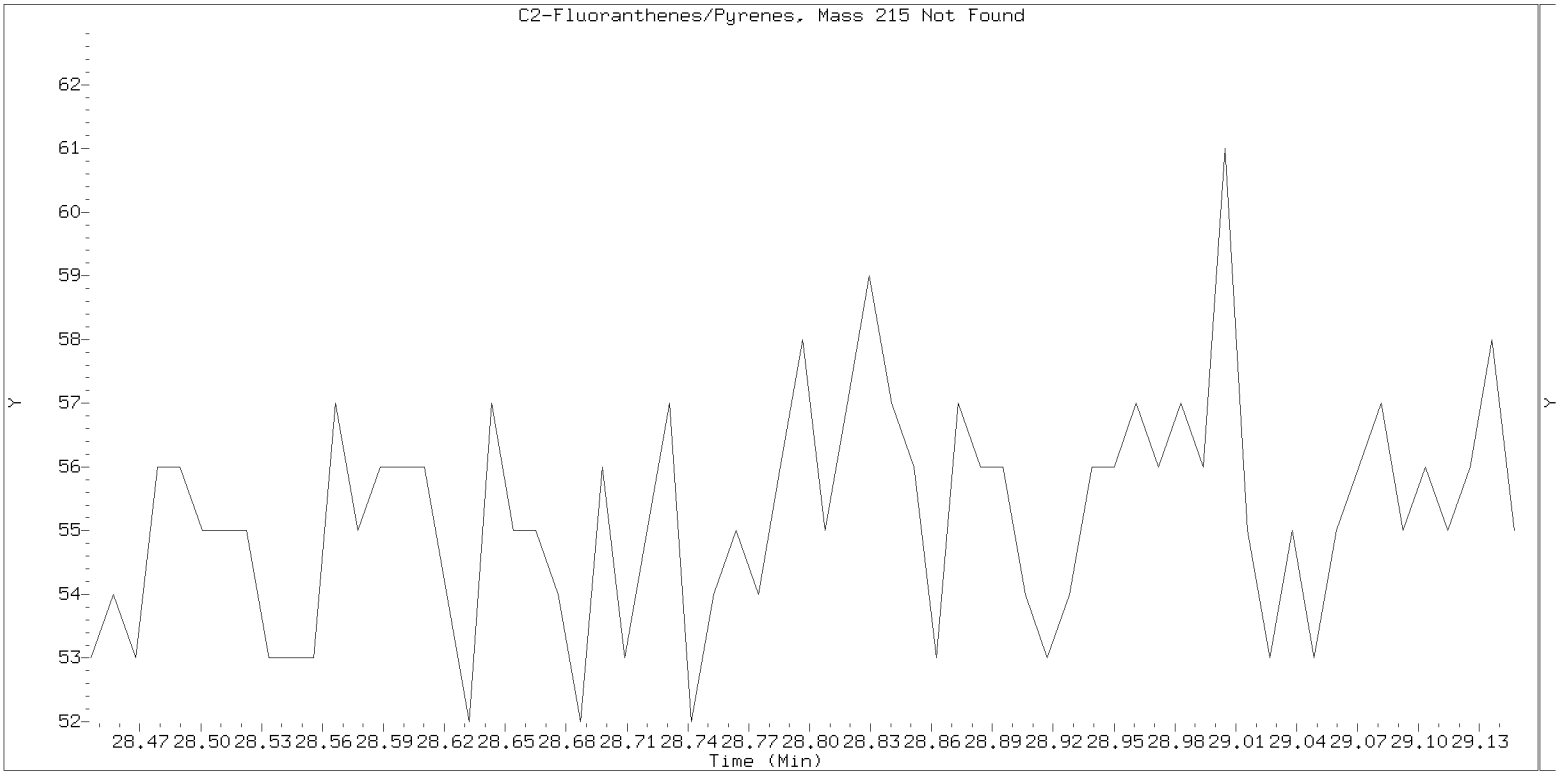

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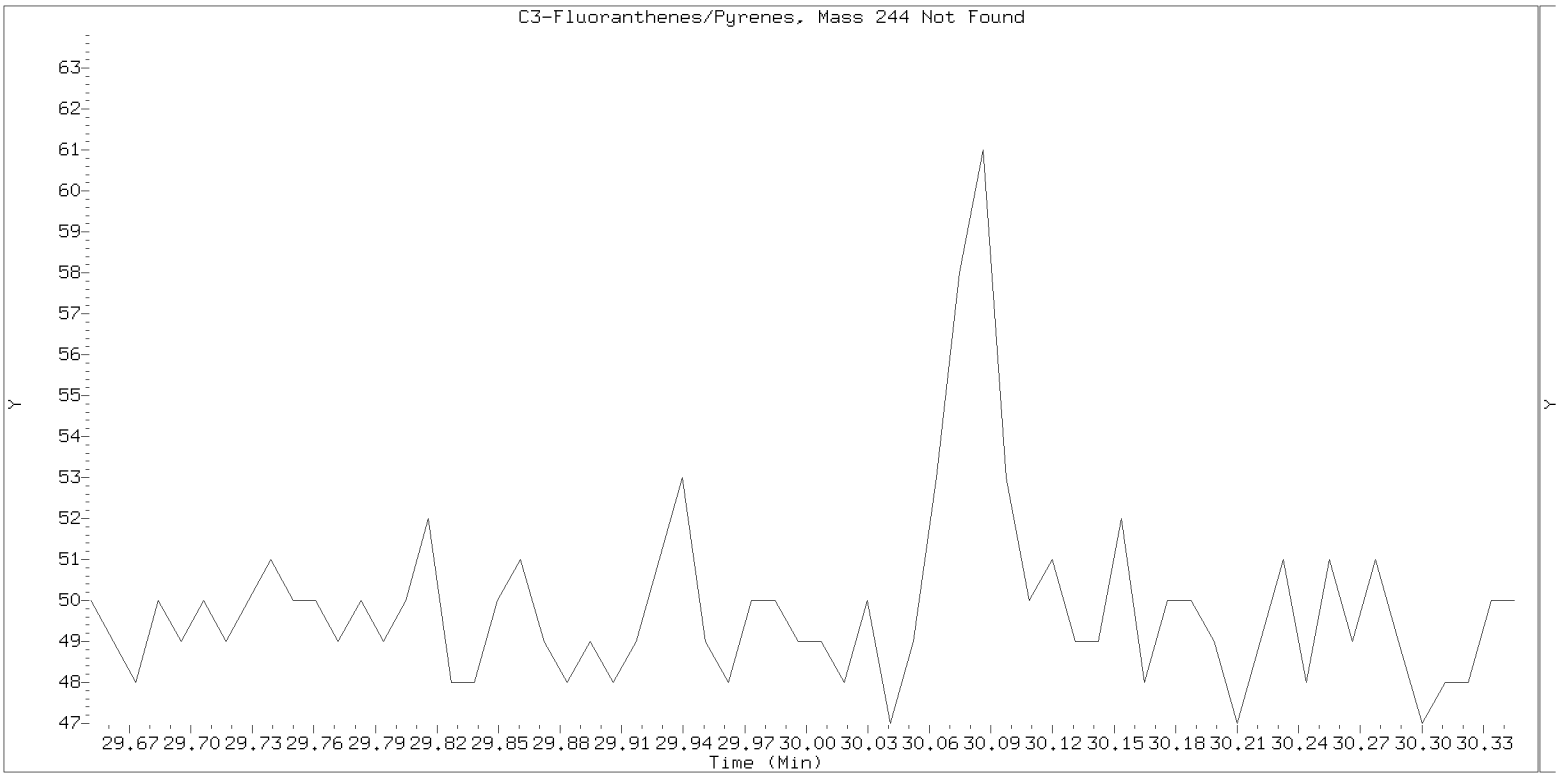

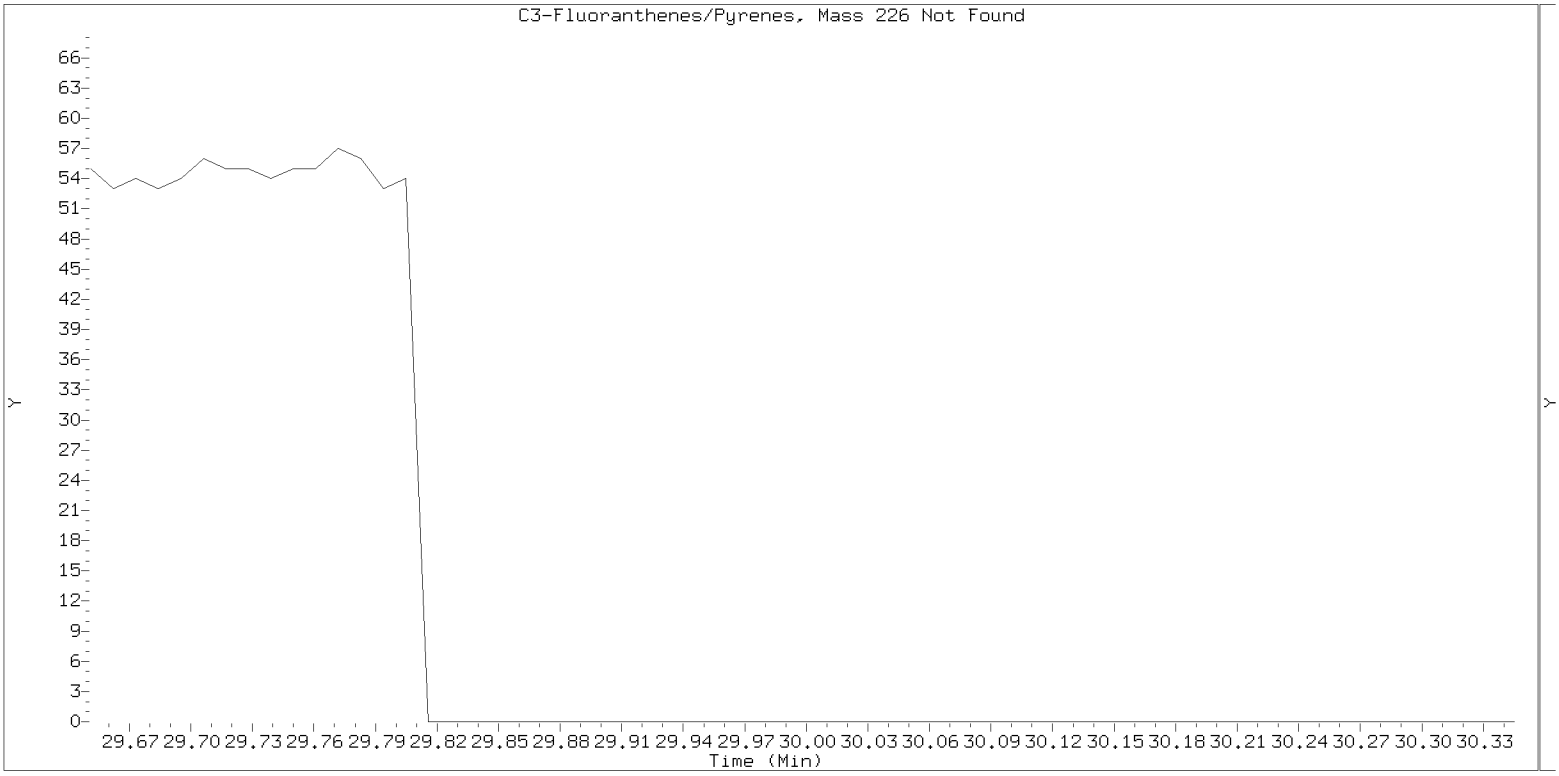

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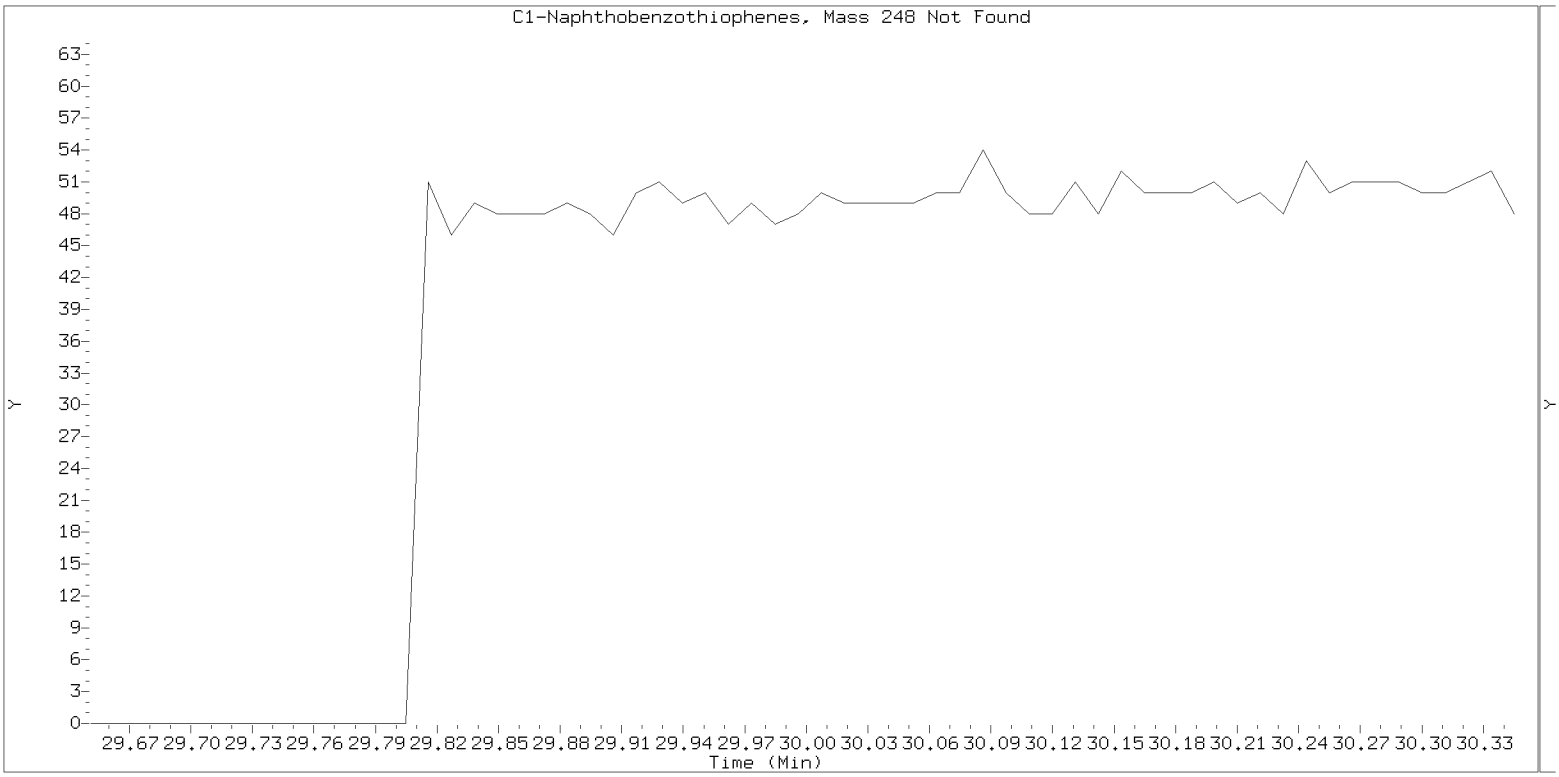

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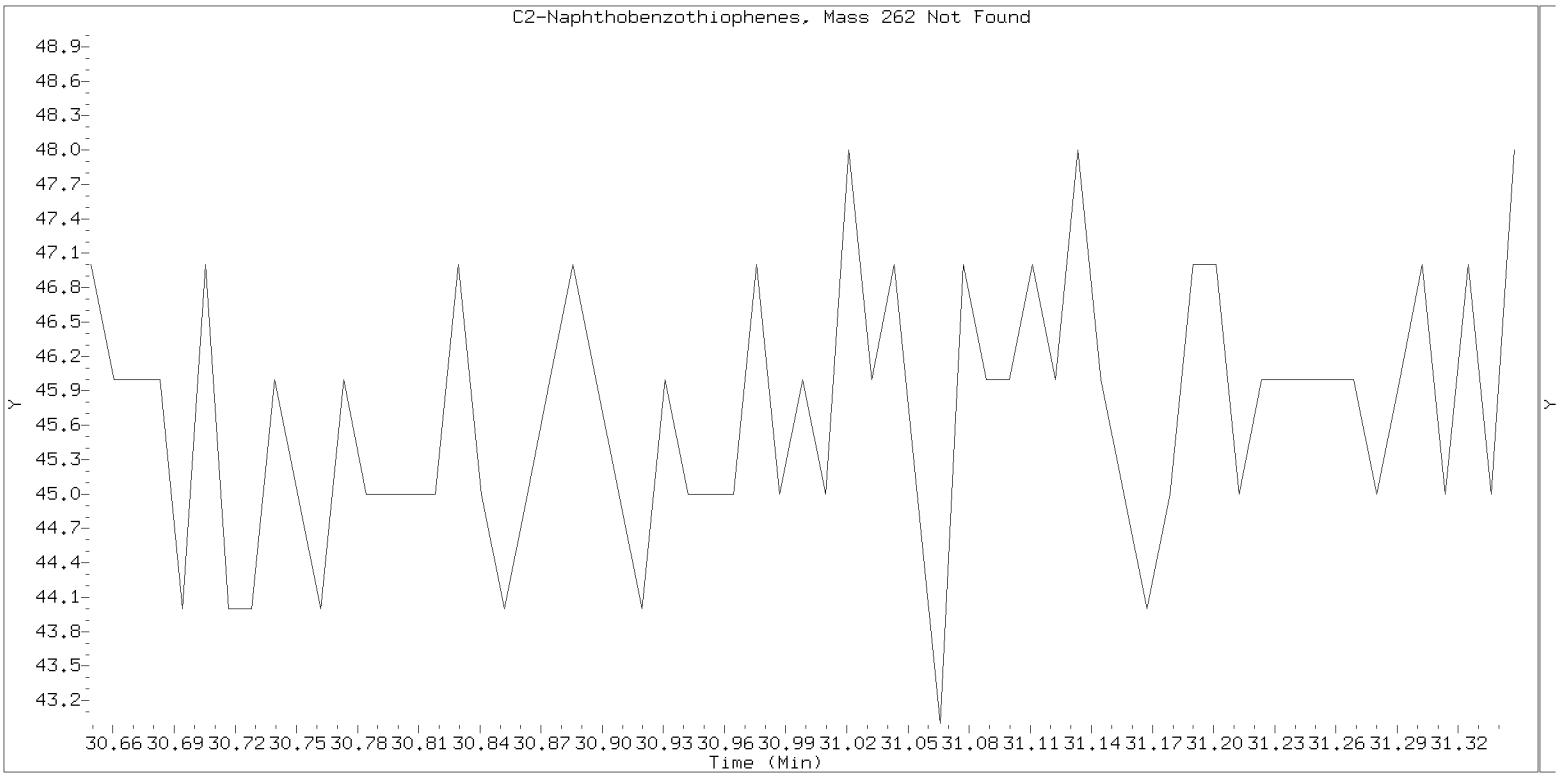

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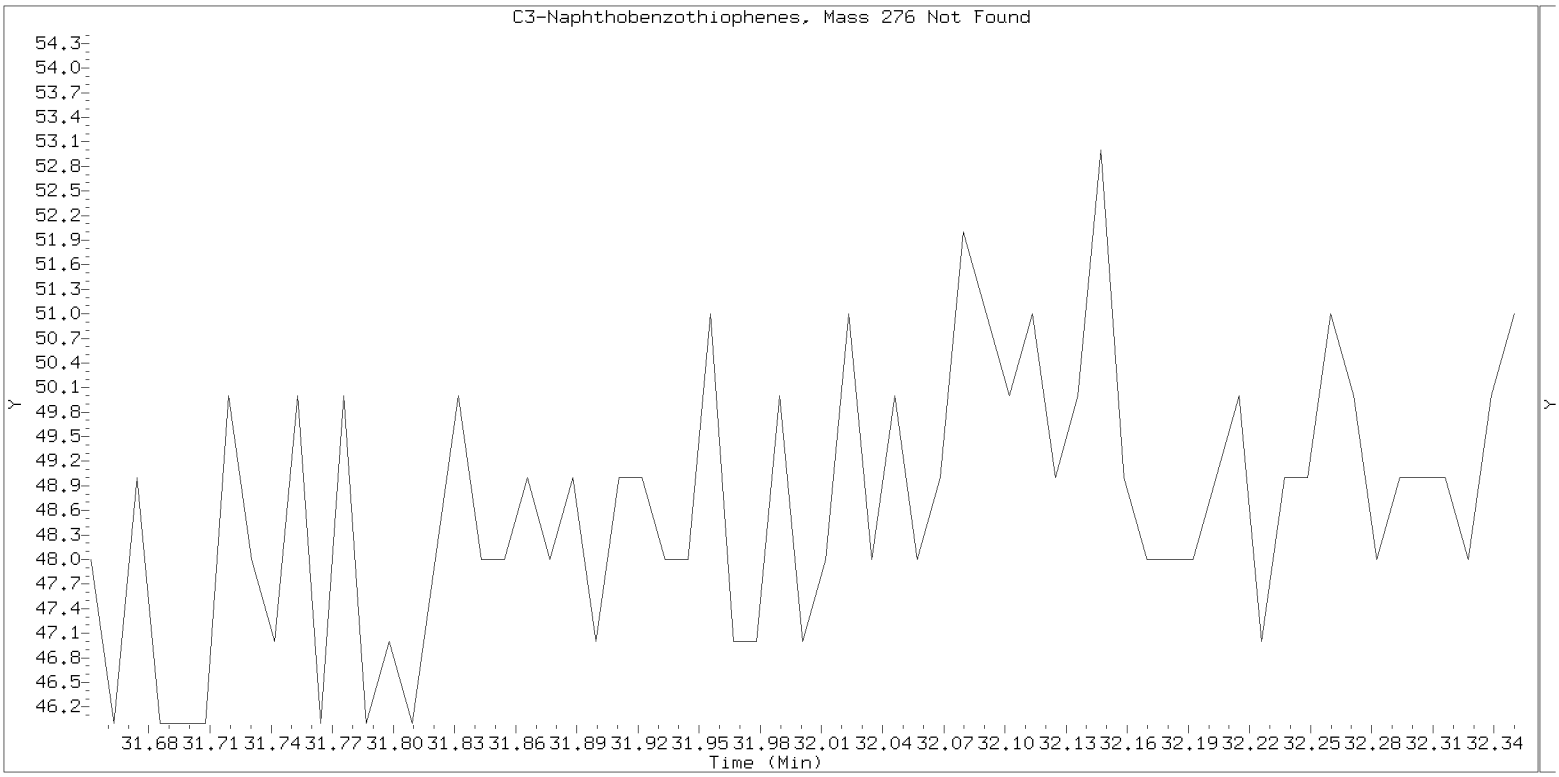

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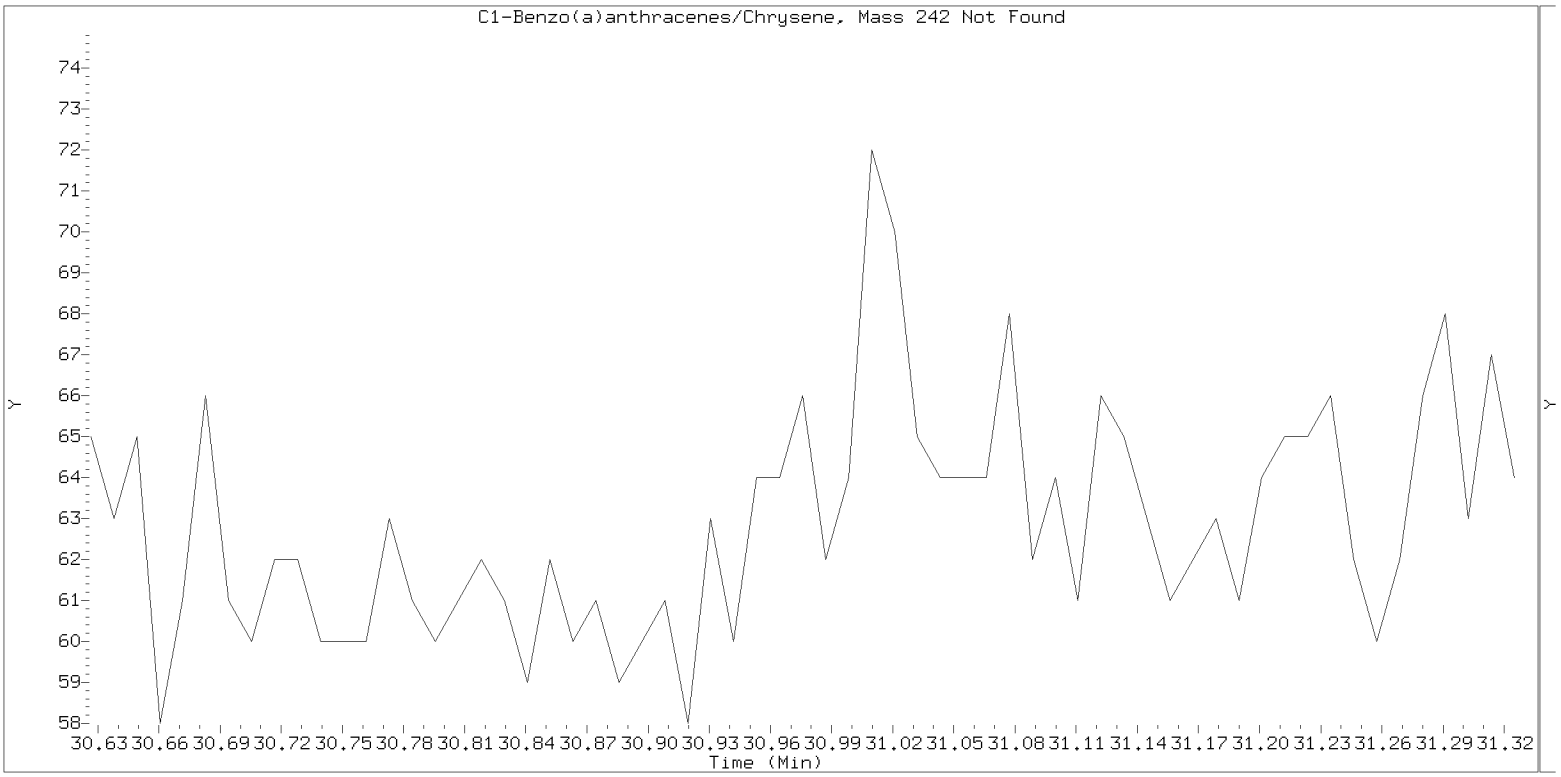
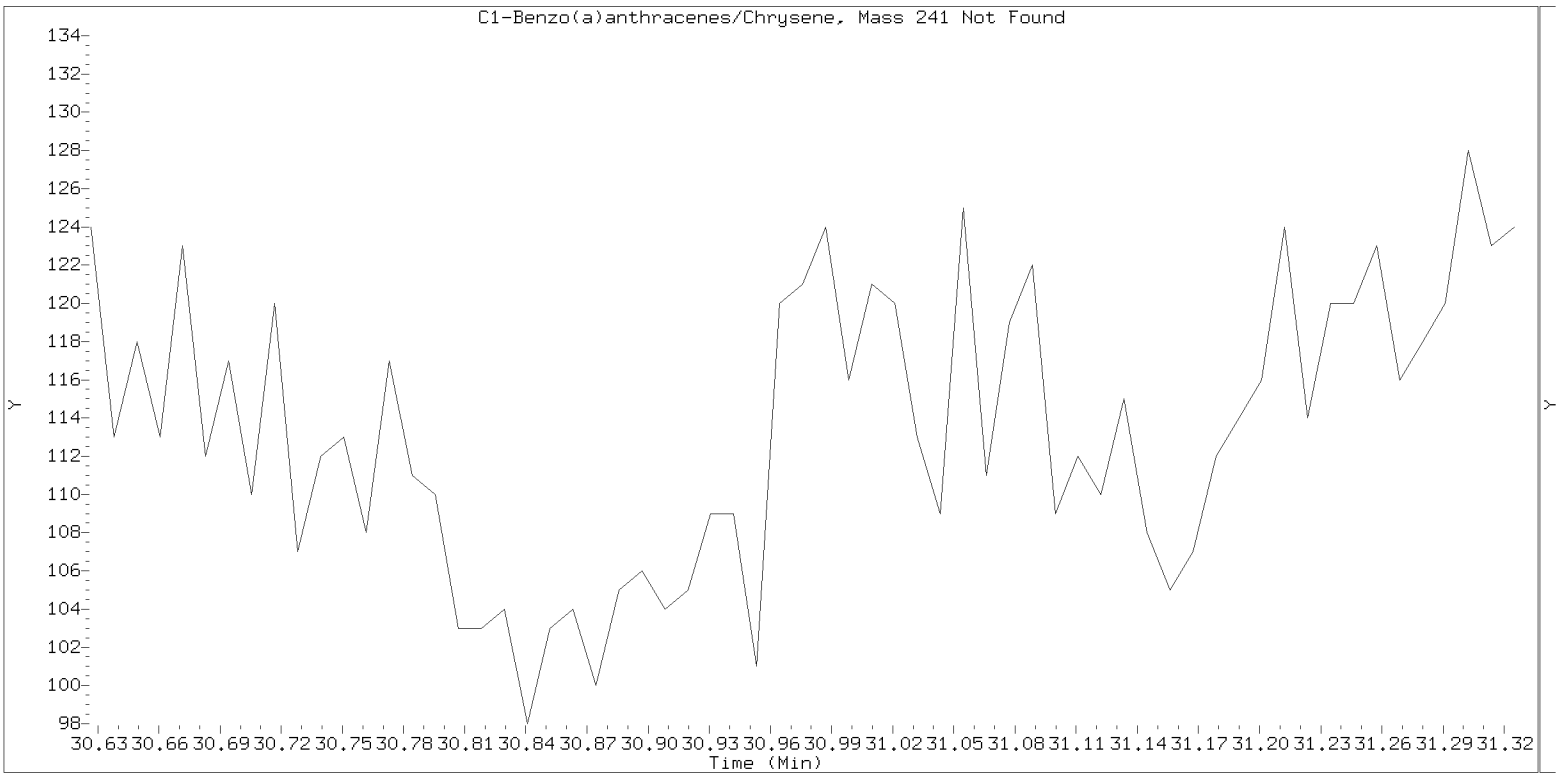
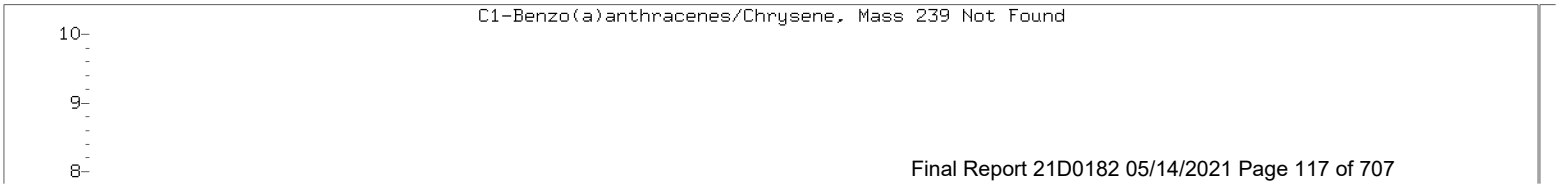
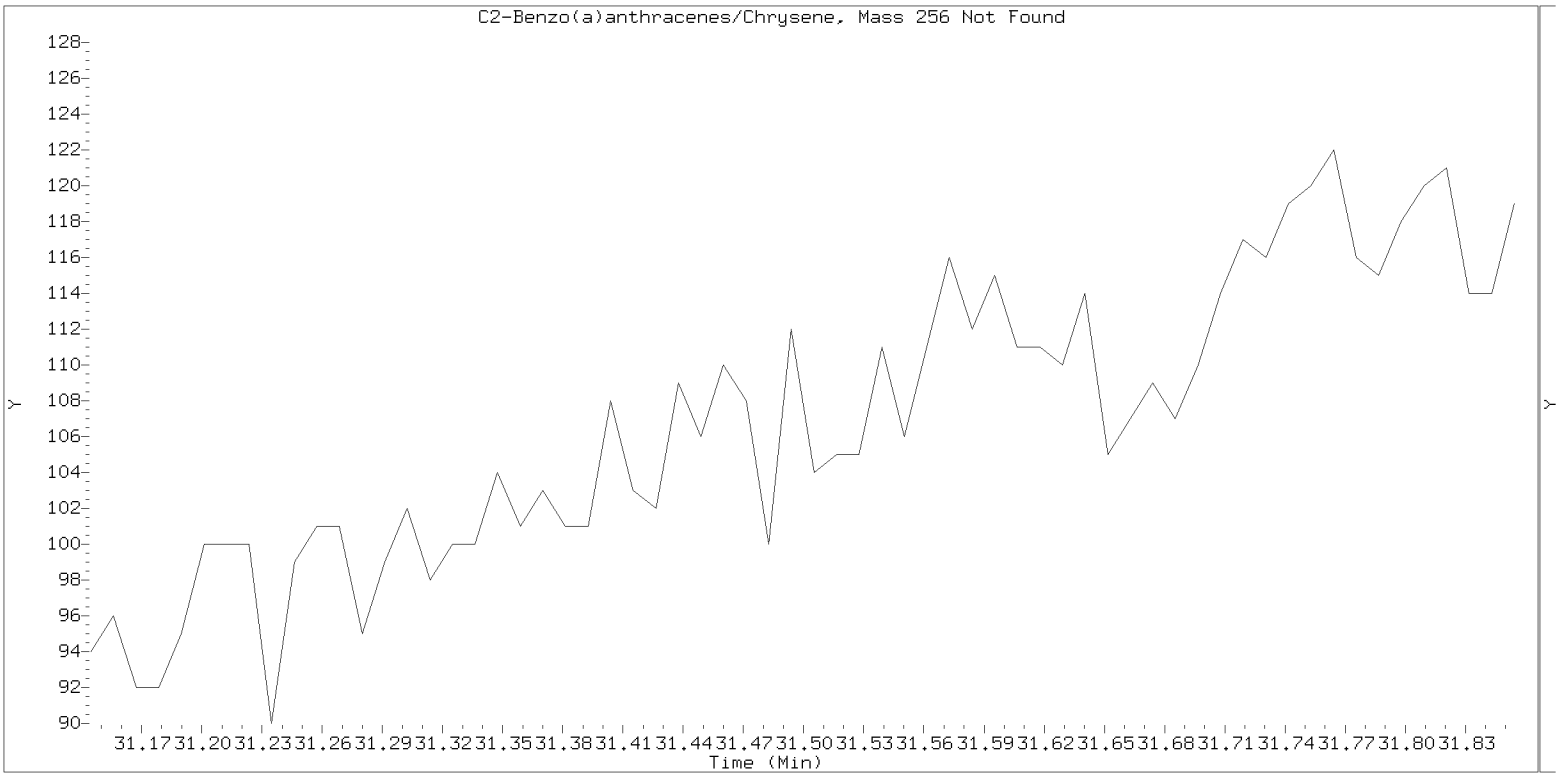


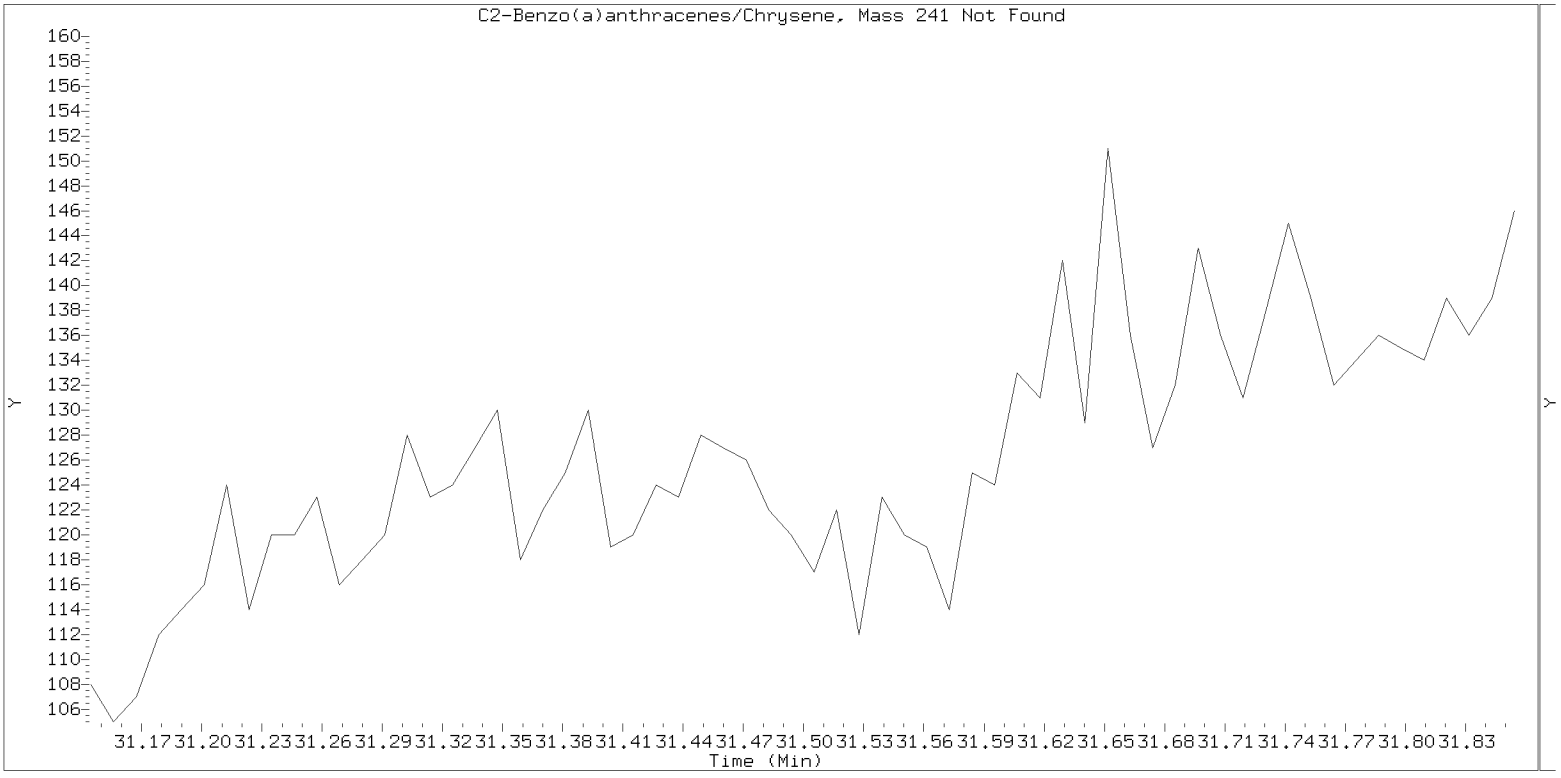


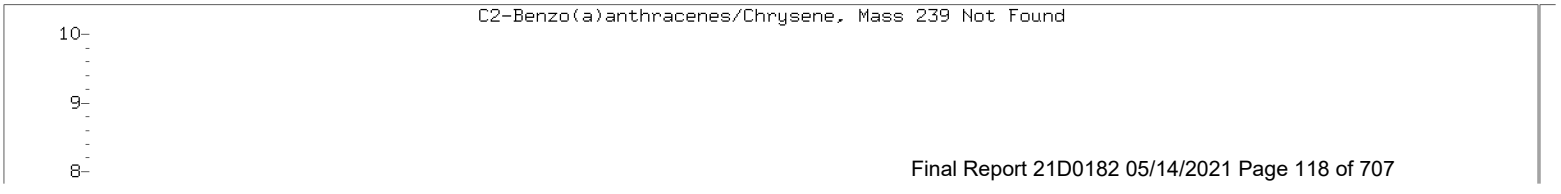


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22

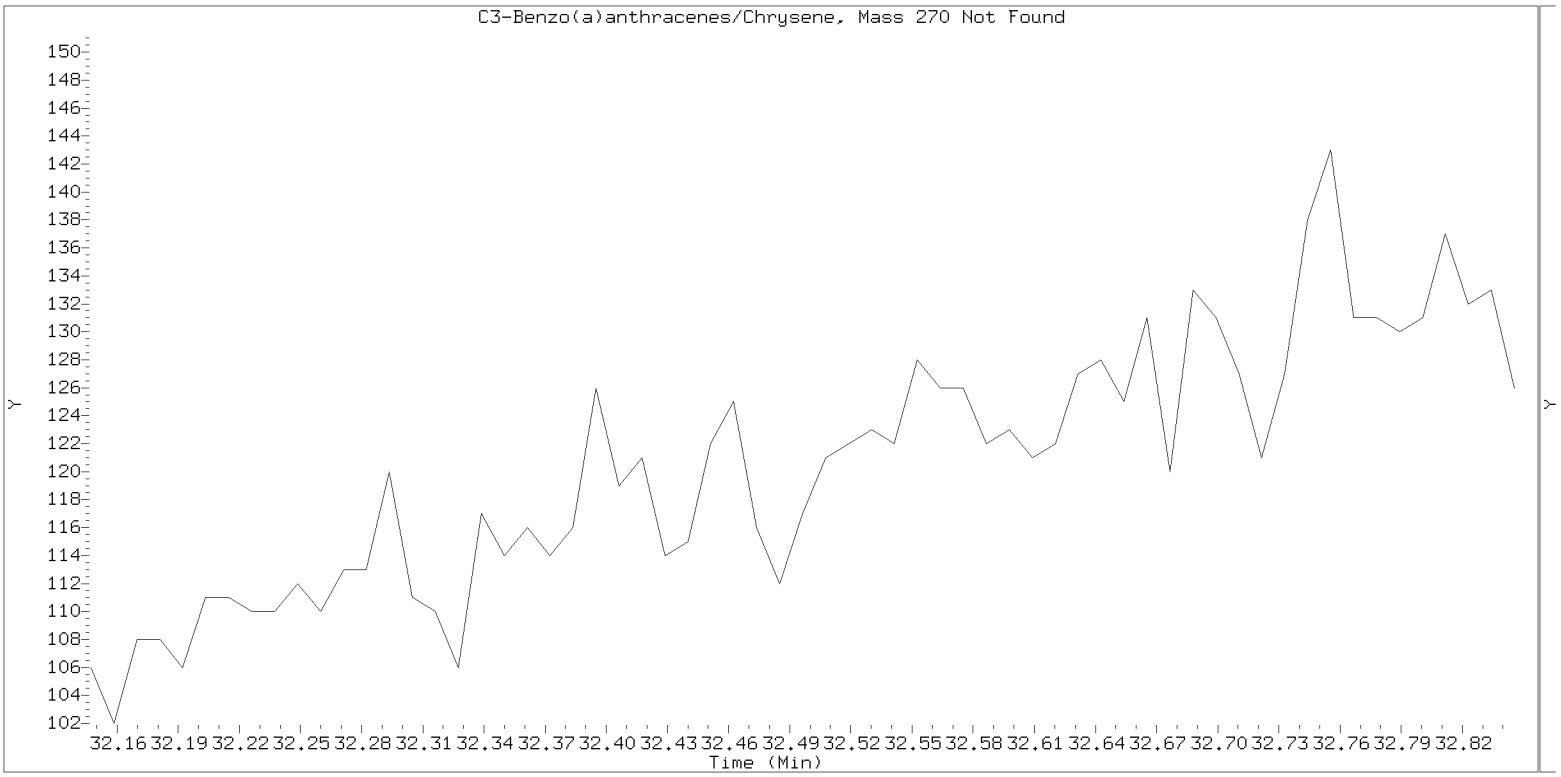


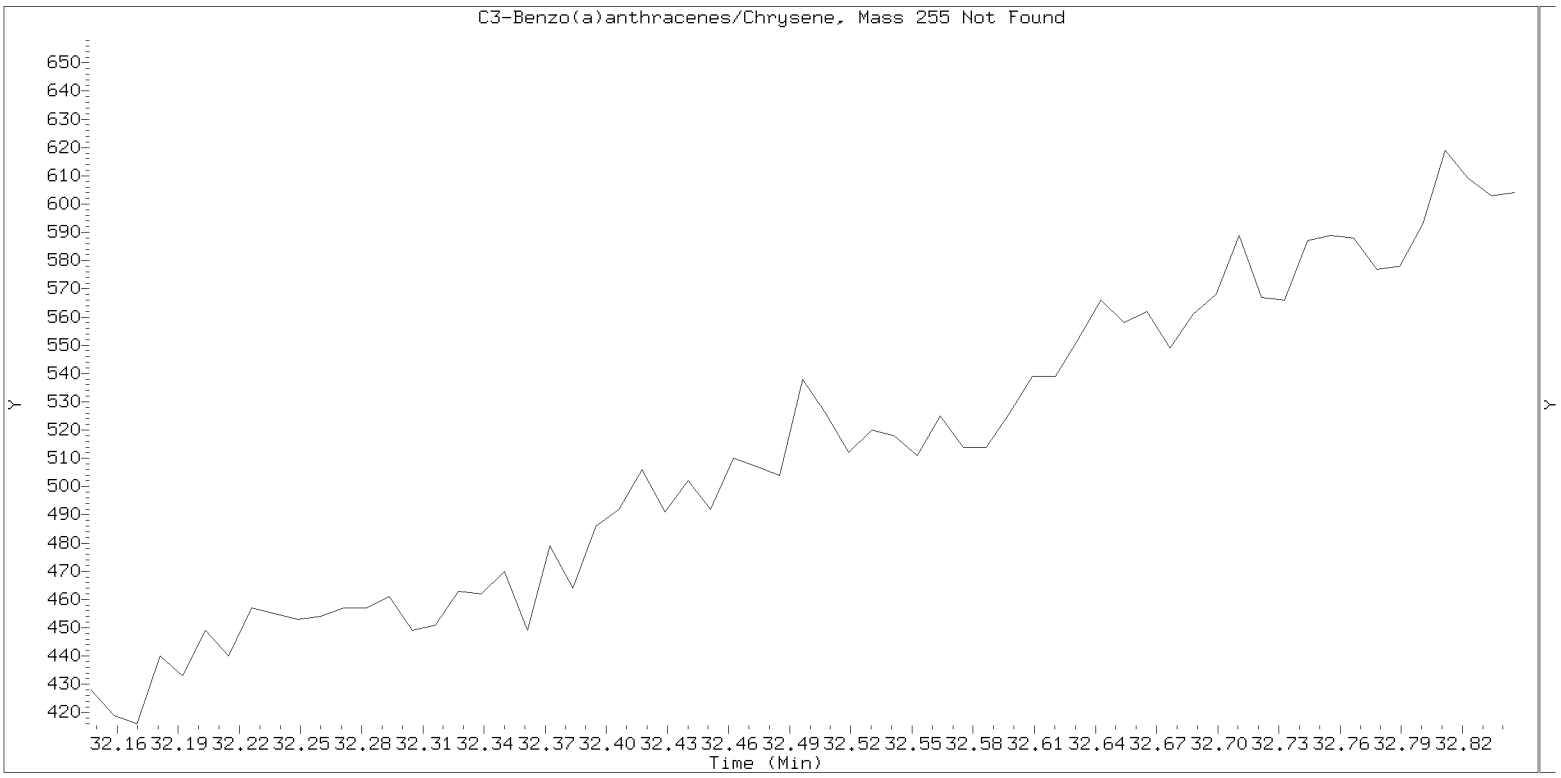


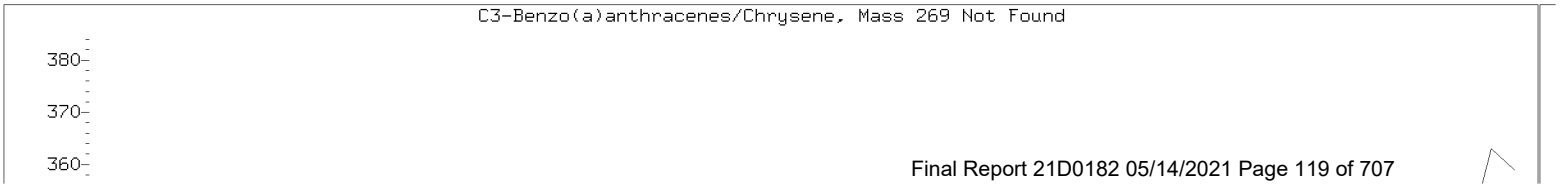


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22

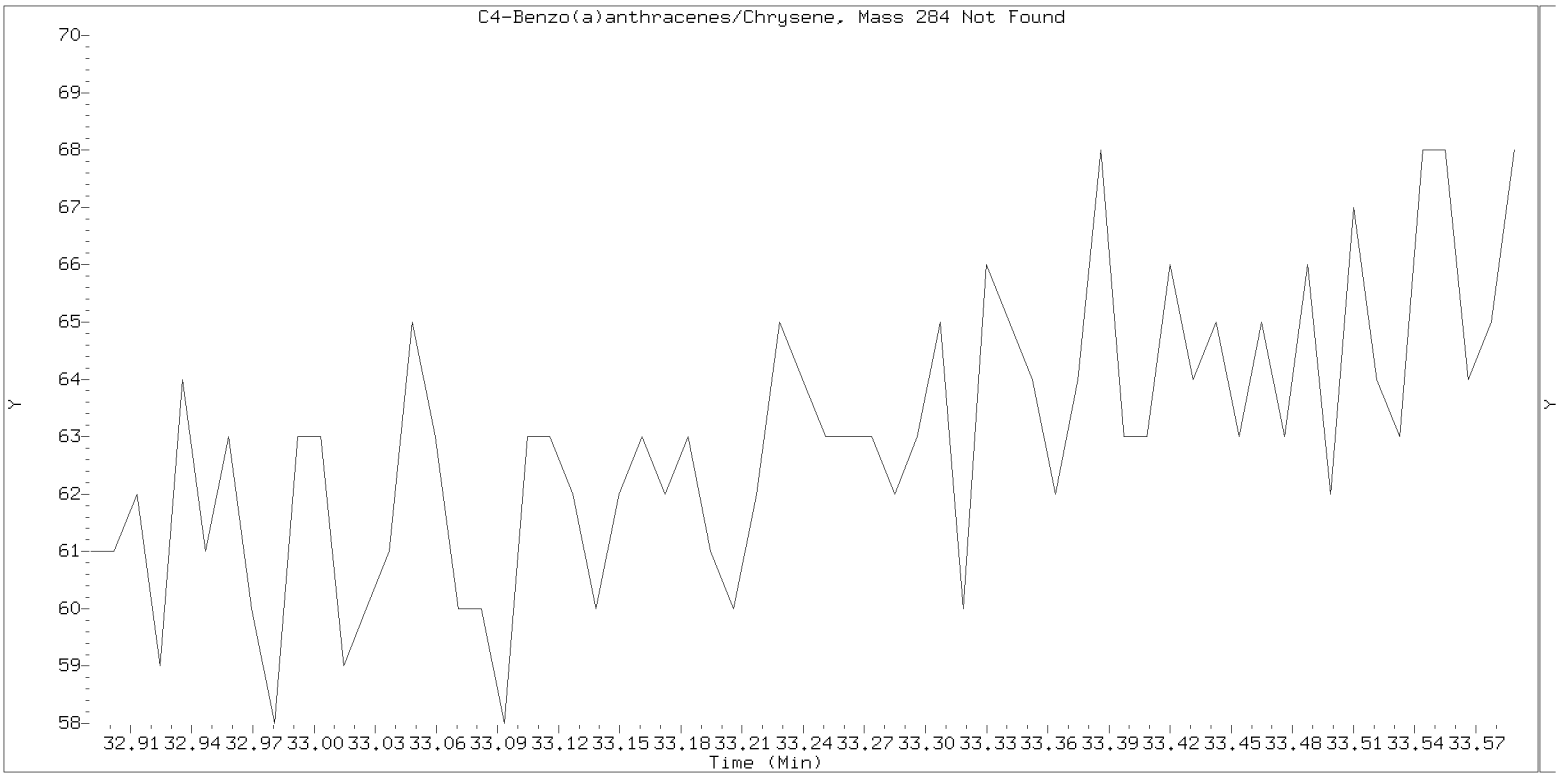


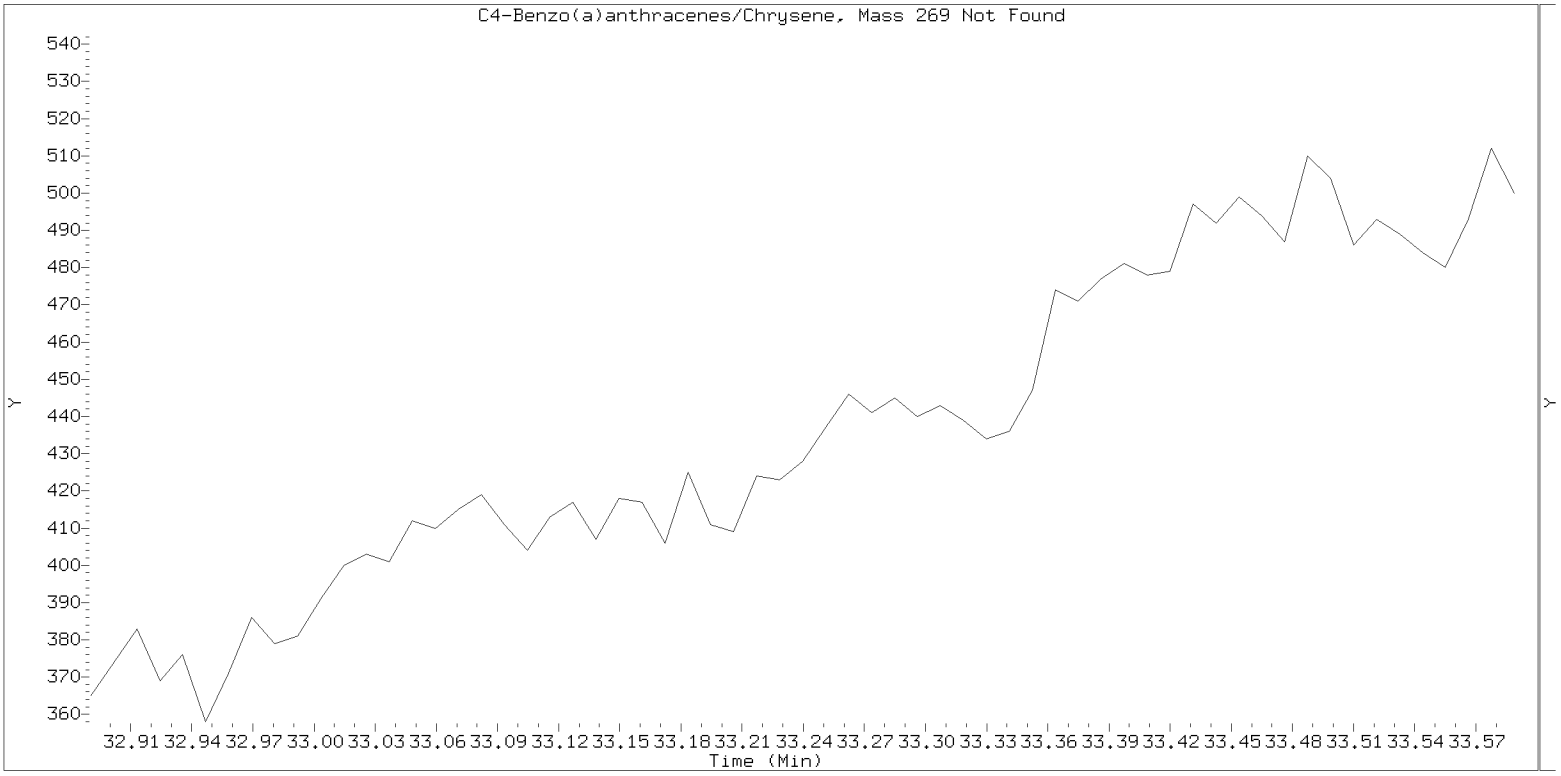


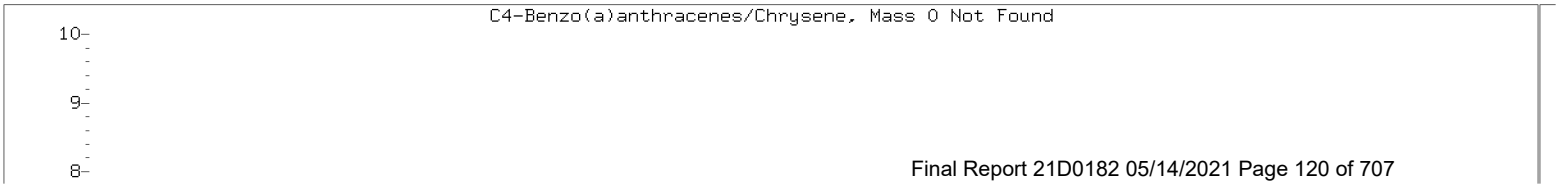


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22

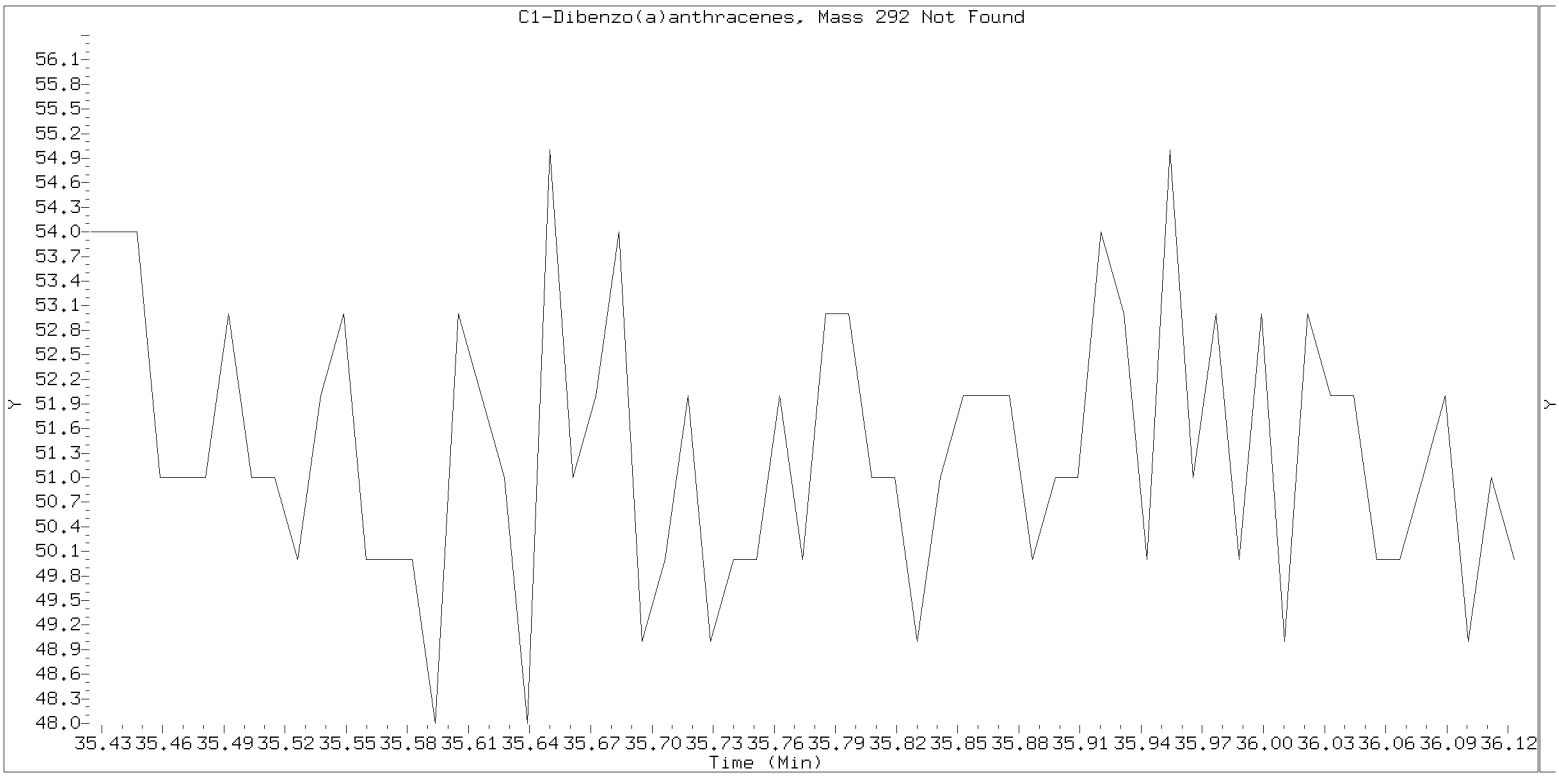






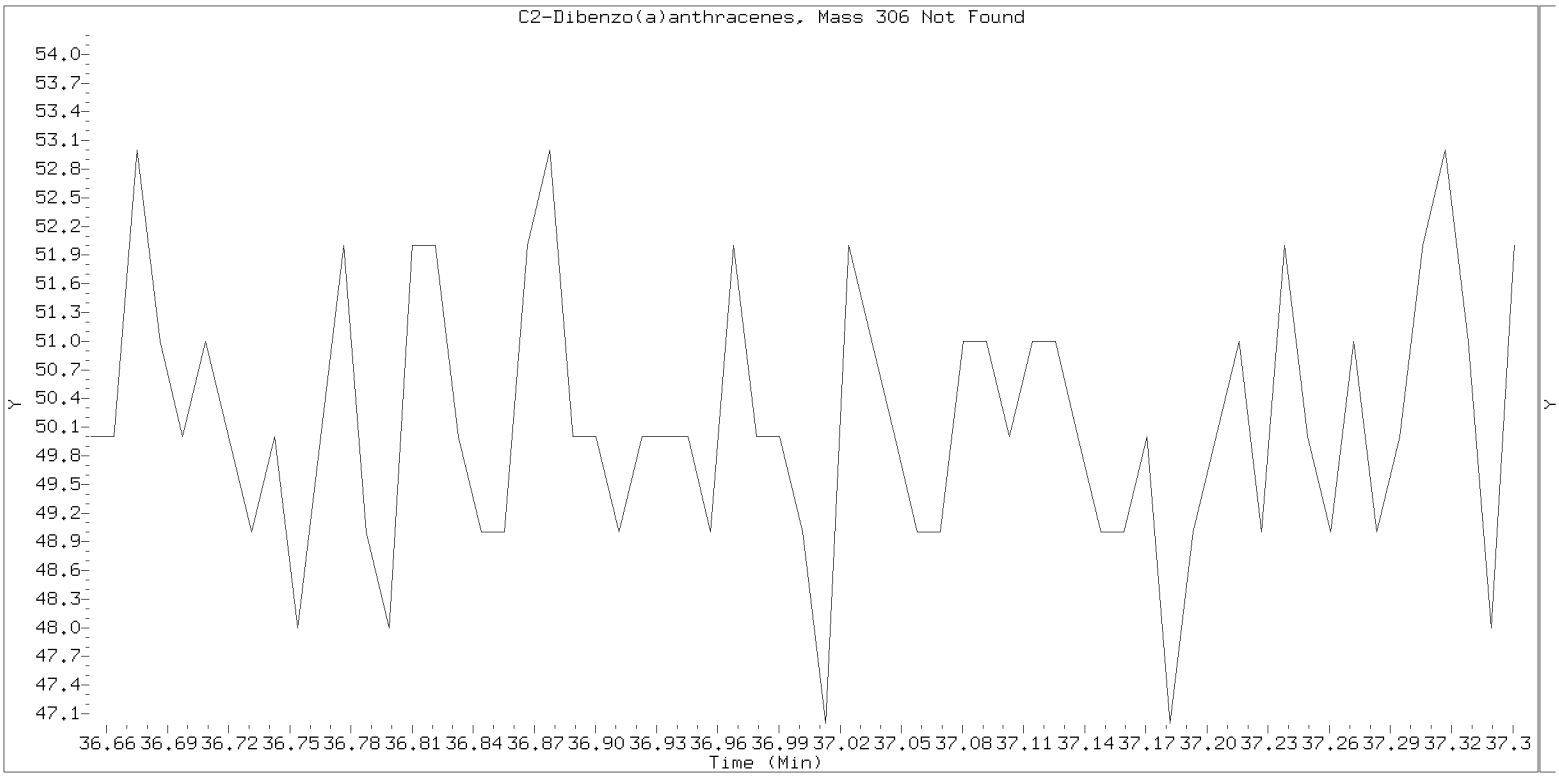
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22



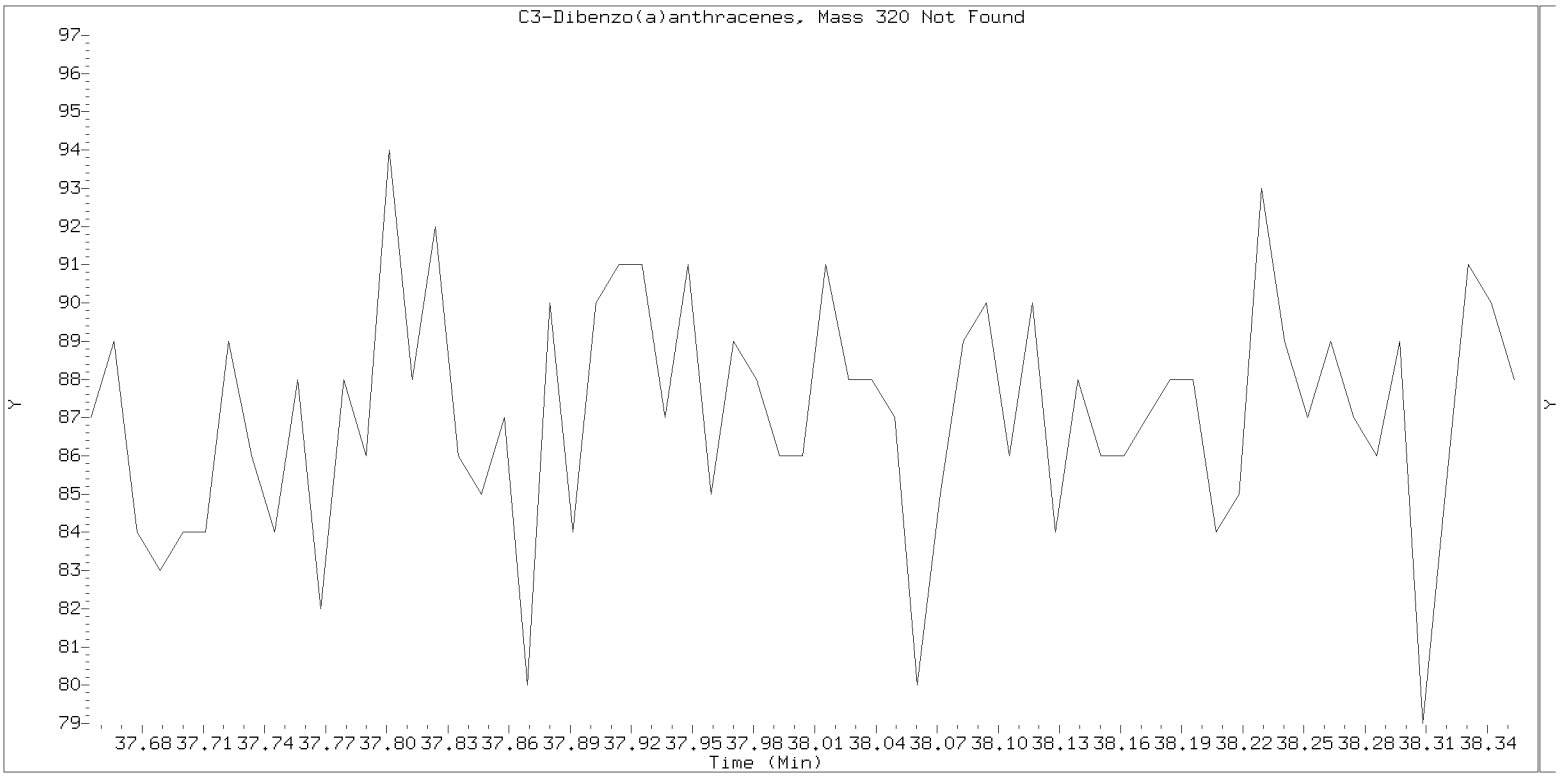
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043037S.D

Lab ID: 21D0182-02
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 12:22



PREPARATION BATCH SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0182

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Batch: BJD0501 Batch Matrix: Water Preparation: EPA 3520C (Liq Liq)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
SG-FB-2104151048	21D0182-01	NT1421043036S.D	04/21/21 10:10	
SG-FB-2104151048	21D0182-01	NT1421043036.D	04/21/21 10:10	
SG-RB-2104151020	21D0182-02	NT1421043037S.D	04/21/21 10:10	
SG-RB-2104151020	21D0182-02	NT1421043037.D	04/21/21 10:10	
Blank	BJD0501-BLK1	NT1421043033.D	04/21/21 10:10	
Blank	BJD0501-BLK2	NT1421043033S.D	04/21/21 10:10	
LCS	BJD0501-BS1	NT1421043034.D	04/21/21 10:10	
LCS Dup	BJD0501-BSD1	NT1421043035.D	04/21/21 10:10	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJD0501

Prepared using: EPA 3520C (Liq Liq)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Water (Version:)
8270E-SIM Alkyl PAH (Range) Dual Scan in Water

Matrix: Water **Date Prepared:** 4/21/21 **Balance ID:** N/A **Set Up By:** CTO 4/21/21

Not enough volume fo MS/MSD. BSD done instead.

Analysis: 8270E-SIM Alkyl PAH (Parents) Dual Scan

Lab Number & Container	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21D0182-01 B	(500.00) 500	23	10:13	08:15	(1:1) Y / N	0.5	0.5	
21D0182-02 B	(500.00) 500	24	10:13	↓	(1:1) Y / N	0.5	0.5	

Analysis: 8270E-SIM Alkyl PAH (Range) Dual Scan

Lab Number & Container	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
21D0182-01 B	(500.00) 500	23	10:13	08:15	(1:1) Y / N	0.5	0.5	
21D0182-02 B	(500.00) 500	24	10:13	↓	(1:1) Y / N	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Disassemble Liq/Liq (Mantle #)	Liq/Liq Start Time	Liq/Liq End Time	(Opt) Silica Gel C/U (1:1) Y/N	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BJD0501-BLK1	(500.00) 500	20	10:13	08:15	(1:1) Y / N	0.5	0.5	
BJD0501-BS1	(500.00) 500	21	10:13	↓	(1:1) Y / N	0.5	0.5	
BJD0501-BSD1	(500.00) 500	22	10:13	↓	(1:1) Y / N	0.5	0.5	

4/21/21 — Client ID verified By — Date

4/22/21 — Preparation Reviewed By — Date

4/21/21 10:10 — Extraction Date and Time

Printed: 4/21/2021 8:02:57AM

3321F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BJD0501

Prepared using: EPA 3520C (Liq Liq)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Water (Version:)
8270E-SIM Alkyl PAH (Range) Dual Scan in Water

Prep Steps

Liquid/Liquid
RM 4/21/21
Analyst/Date

KD 80 - 85°C
Hexane Exchange
(2 X 20 mL)
100°C
1 (2) 3 (4) (5) 6
NLB 4/22/21
Analyst/Date

TurboVap
Pre Silica Gel Clean
1 2 3 4 (5)
CMS 4/22/21
Analyst/Date

TurboVap
Post Silica Gel Clean
1 2 3 4 5
Analyst/Date

Vialing
CMS 4/22/21
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Liquid/Liquid Setup Analyst: RM Date: 4/21/21	
Methylene Chloride	JQQ3349
Hexane	JQQ2562
Liquid/Liquid Breakdown Analyst: RM Date: 4/22/21	
Anhydrous Sodium Sulfate	JQQ3764
KD Analyst: NLB Date: 4/22/21	
Methylene Chloride	JQQ3349
Hexane	JQQ2940
Vialing Analyst: CMS Date: 4/22/21	
Methylene Chloride	J003349
Hexane	J002940
Silica Gel (SPE) Darts	N/A

Surrogates & Spike Standards Used

Type	Vial ID / Standard ID	Vol uL	Analyst	Witness
Surrogate 15/75µg/mL	T I010873 Exp: 11/24/2021	100µL	RM	TW
Spike 15/75µg/mL	15 I010207 Exp: 10/03/2021	100µL	RM	TW

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BJD0501

Prepared using: EPA 3520C (Liq Liq)

8270E-SIM Alkyl PAH (Parents) Dual Scan in Water (Version:)
8270E-SIM Alkyl PAH (Range) Dual Scan in Water

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Use 500mL Liq/Liq Body 2. Add 20-25mL Hexane. 3. Add ~200mL DCM to Liq/Liq. 4. Add surr/spike. 5. Extract minimum 8 hrs. 6. KD (no drying column) to 5mL at 80°. 7. Exchange (2 X with 20mL) to Hexane at 100°. 8. TurboVap. 9. Silica Clean-up Opt-Any Color=REQ (All or none). 10. TurboVap (if Silica Clean). 11. Vial in DCM. Archive [Y] N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: SIM ALKYL PNA Extraction Batch BJD0501

Total Solids Batch: N/A Work Order(s): 21D0182

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Previously Frozen =	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies	KF 4/22/21
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21D0182
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJD0501-BLK1	File ID:	NT1421043033.D
Sampled:	N/A	Prepared:	04/21/21 10:10	Analyzed:	05/01/21 09:10
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJD0501	Sequence:	SJD0345	Calibration:	EE00001
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
493-02-7	trans-Decalin	1	0.100	U	0.007	0.100
493-01-6	cis-Decalin	1	0.100	U	0.007	0.100
91-20-3	Naphthalene	1	0.100	U	0.011	0.100
90-12-0	1-Methylnaphthalene	1	0.100	U	0.010	0.100
91-57-6	2-Methylnaphthalene	1	0.100	U	0.010	0.100
92-52-4	Biphenyl	1	0.100	U	0.012	0.100
581-42-0	2,6-Dimethylnaphthalene	1	0.100	U	0.013	0.100
208-96-8	Acenaphthylene	1	0.100	U	0.006	0.100
83-32-9	Acenaphthene	1	0.100	U	0.011	0.100
132-64-9	Dibenzofuran	1	0.100	U	0.009	0.100
2245-38-7	2,3,5-Trimethylnaphthalene	1	0.100	U	0.008	0.100
86-73-7	Fluorene	1	0.100	U	0.007	0.100
95-15-8	Benzo(b)thiophene	1	0.100	U	0.009	0.100
85-01-8	Phenanthrene	1	0.100	U	0.009	0.100
120-12-7	Anthracene	1	0.100	U	0.025	0.100
86-74-8	Carbazole	1	0.100	U	0.028	0.100
832-69-9	1-Methylphenanthrene	1	0.100	U	0.005	0.100
206-44-0	Fluoranthene	1	0.100	U	0.007	0.100
132-65-0	Dibenzothiophene	1	0.100	U	0.021	0.100
129-00-0	Pyrene	1	0.100	U	0.014	0.100
56-55-3	Benzo(a)anthracene	1	0.100	U	0.017	0.100
218-01-9	Chrysene	1	0.100	U	0.010	0.100
205-99-2	Benzo(b)fluoranthene	1	0.100	U	0.010	0.100
205-82-3	Benzo(j)fluoranthene	1	0.100	U	0.038	0.100
207-08-9	Benzo(k)fluoranthene	1	0.100	U	0.010	0.100
197-97-2	Benzo(e)pyrene	1	0.100	U	0.014	0.100
50-32-8	Benzo(a)pyrene	1	0.100	U	0.022	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.100	U	0.014	0.100
53-70-3	Dibenzo(a,h)anthracene	1	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	1	0.100	U	0.009	0.100
1985-5-0	Perylene	1	0.100	U	0.032	0.100
239-35-0	Benzo(b)naphtho(2,1-d)thiophene	1	0.100	U	0.100	0.100

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Naphthalene-d8	3.0000	1.94	64.8	30 - 160	
Acenaphthene-d10	3.0000	2.20	73.4	30 - 160	
Phenanthrene-d10	3.0000	2.11	70.5	30 - 160	

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21D0182
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJD0501-BLK1	File ID:	NT1421043033.D
Sampled:	N/A	Prepared:	04/21/21 10:10	Analyzed:	05/01/21 09:10
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJD0501	Sequence:	SJD0345	Calibration:	EE00001
Instrument:	NT14	Column:	ZB-5MS		

SURROGATES	ADDED (ug/L)	CONC. (ug/L)	% REC	QC LIMITS	Q
Chrysene-d12	3.0000	2.21	73.6	30 - 160	
Perylene-d12	3.0000	1.86	61.8	30 - 160	

Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043033.D

Date : 01-MAY-2021 09:10

Client ID:

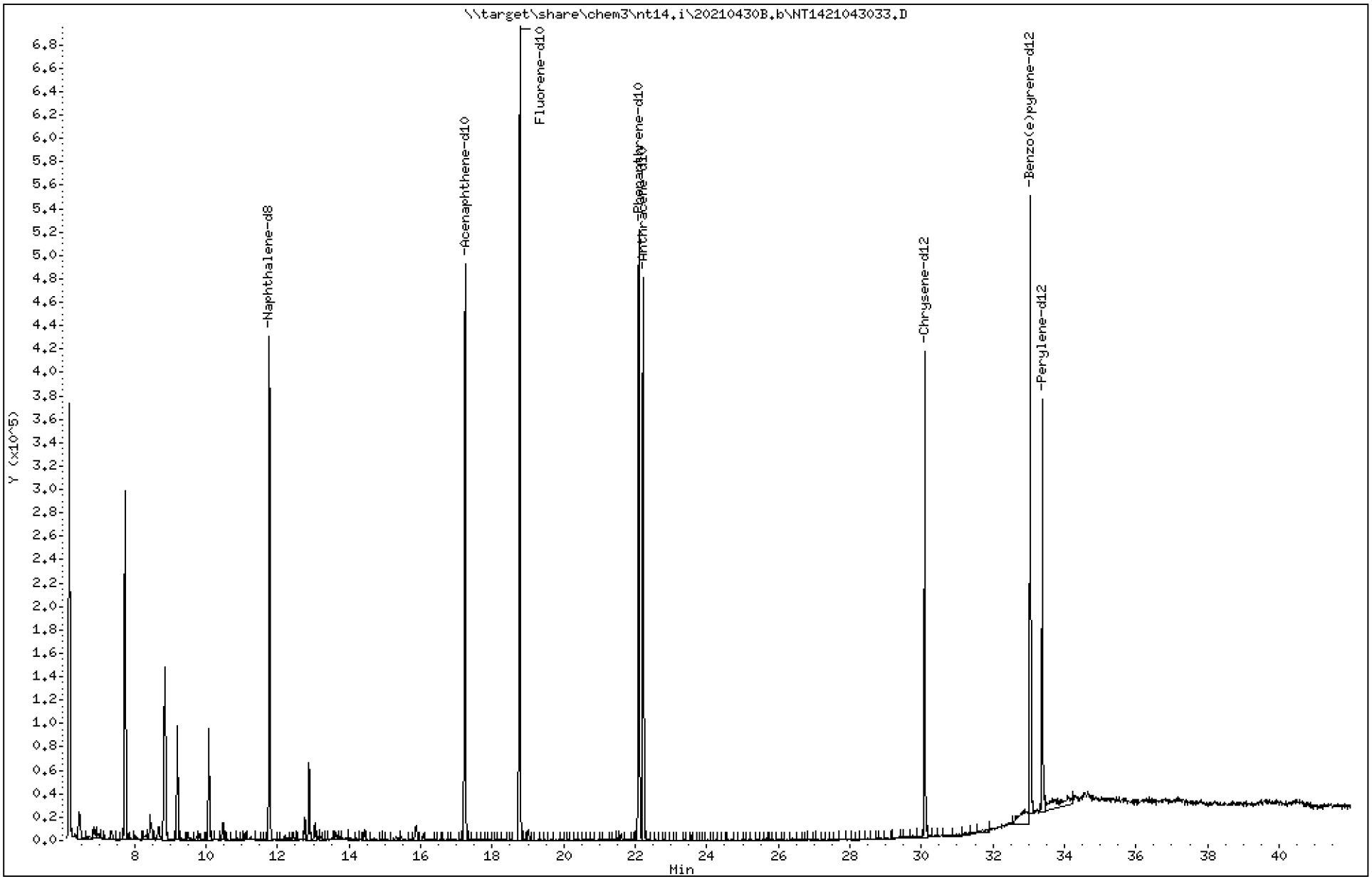
Instrument: nt14.i

Sample Info: BJD0501-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043033.D
Lab Smp Id: BJD0501-BLK1
Inj Date : 01-MAY-2021 09:10
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0501-BLK1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 07-May-2021 10:16 yev Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
1	trans-Decalin	138	Compound Not Detected.					
2	cis-Decalin	138	Compound Not Detected.					
$ 6	Naphthalene-d8	136	11.766	11.776	(0.627)	601814	1.94299	1.943(R)
7	Naphthalene	128	Compound Not Detected.					
12	Benzo(b)thiophene	134	Compound Not Detected.					
16	2-Methylnaphthalene	141	Compound Not Detected.					
17	1-methylnaphthalene	141	Compound Not Detected.					
18	Biphenyl	154	Compound Not Detected.					
19	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
20	Acenaphthylene	152	Compound Not Detected.					
$ 21	Acenaphthene-d10	164	17.241	17.241	(0.918)	333067	2.20225	2.202(R)
22	Acenaphthene	153	Compound Not Detected.					
23	Dibenzofuran	168	Compound Not Detected.					
24	1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
* 25	Fluorene-d10	176	18.772	18.772	(1.000)	536706	2.00000	
26	Fluorene	166	Compound Not Detected.					
30	Dibenzothiophene	184	Compound Not Detected.					
$ 35	Phenanthrene-d10	188	22.104	22.104	(0.995)	549618	2.11362	2.114(R)
36	Phenanthrene	178	Compound Not Detected.					
* 250	Anthracene-d10	188	22.214	22.214	(1.000)	481199	2.00000	
37	Anthracene	178	Compound Not Detected.					
42	Carbazole	167	Compound Not Detected.					
43	1-Methylphenanthrene	192	Compound Not Detected.					
44	Fluoranthene	202	Compound Not Detected.					
46	Pyrene	202	Compound Not Detected.					
51	Naphthobenzothiophene	234	Compound Not Detected.					
55	Benzo(a)anthracene	228	Compound Not Detected.					
$ 56	Chrysene-d12	240	30.095	30.095	(0.911)	364923	2.20884	2.209(R)
57	Chrysene	228	Compound Not Detected.					
62	Benzo(b)fluoranthene	252	Compound Not Detected.					
63	Benzo(k)fluoranthene	252	Compound Not Detected.					
293	Benzo(j)fluoranthene	252	Compound Not Detected.					
246	Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	454674	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	325801	1.85527	1.855(R)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043033.D
Lab Smp Id: BJD0501-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	536706	1.89
250 Anthracene-d10	481292	240646	962584	481199	-0.02
251 Benzo(e)pyrene-d1	486825	243413	973650	454674	-6.60

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043033.D

Lab ID: BJD0501-BLK1
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 09:10

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

RRT check based on Ccal File: NT1421043024ICV.D

On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21D0182
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJD0501-BLK2	File ID:	NT1421043033S.D
Sampled:	N/A	Prepared:	04/21/21 10:10	Analyzed:	05/01/21 09:10
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJD0501	Sequence:	SJD0347	Calibration:	EE00019
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
C1DEC	C1-Decalins	1	0.020	U		0.020
C2DEC	C2-Decalins	1	0.020	U		0.020
C3DEC	C3-Decalins	1	0.020	U		0.020
C4DEC	C4-Decalins	1	0.020	U		0.020
C1NAPH	C1-Naphthalenes	1	0.020	U		0.020
C2NAPH	C2-Naphthalenes	1	0.020	U		0.020
C3NAPH	C3-Naphthalenes	1	0.020	U		0.020
C4NAPH	C4-Naphthalenes	1	0.020	U		0.020
C1FLR	C1-Fluorenes	1	0.020	U		0.020
C4PHNANT	C4-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C1FLPYR	C1-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C2FLR	C2-Fluorenes	1	0.020	U		0.020
C3FLR	C3-Fluorenes	1	0.020	U		0.020
C1DBTPH	C1-Dibenzothiophenes	1	0.020	U		0.020
C2DBTPH	C2-Dibenzothiophenes	1	0.020	U		0.020
C3DBTPH	C3-Dibenzothiophenes	1	0.020	U		0.020
C4DBTPH	C4-Dibenzothiophenes	1	0.020	U		0.020
C1PHNANT	C1-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2PHNANT	C2-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C3PHNANT	C3-Phenanthrenes/Anthracenes	1	0.020	U		0.020
C2FLPYR	C2-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C3FLPYR	C3-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C4FLPYR	C4-Fluoranthenes/Pyrenes	1	0.020	U		0.020
C1BAACYR	C1-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C2BAACYR	C2-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C3BAACYR	C3-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C4BAACYR	C4-Benzo(a)anthracenes/Chrysenes	1	0.020	U		0.020
C1BZTPH	C1-Benzothiophenes	1	0.020	U		0.020
C2BZTPH	C2-Benzothiophenes	1	0.020	U		0.020
C3BZTPH	C3-Benzothiophenes	1	0.020	U		0.020
C1NPBTP	C1-Naphthobenzothiophenes	1	0.020	U		0.020
C2NPBTP	C2-Naphthobenzothiophenes	1	0.020	U		0.020
C3NPBTP	C3-Naphthobenzothiophenes	1	0.020	U		0.020
C4NPBTP	C4-Naphthobenzothiopenes	1	0.020	U		0.020
C1DBA	C1-Dibenzo(a)anthracenes	1	0.020	U		0.020
C2DBA	C2-Dibenzo(a)anthracenes	1	0.020	U		0.020

Form I

METHOD BLANK DATA SHEET

EPA 8270E-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	21D0182
Client:	Anchor QEA, LLC			Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Laboratory ID:	BJD0501-BLK2	File ID:	NT1421043033S.D
Sampled:	N/A	Prepared:	04/21/21 10:10	Analyzed:	05/01/21 09:10
Solids:		Preparation:	EPA 3520C (Liq Liq)	Initial/Final:	500 mL / 0.5 mL
Batch:	BJD0501	Sequence:	SJD0347	Calibration:	EE00019
Instrument:	NT14	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
C3DBA	C3-Dibenzo(a)anthracenes	1	0.020	U		0.020

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT14210430333S.D

Date : 01-MAY-2021 09:10

Client ID:

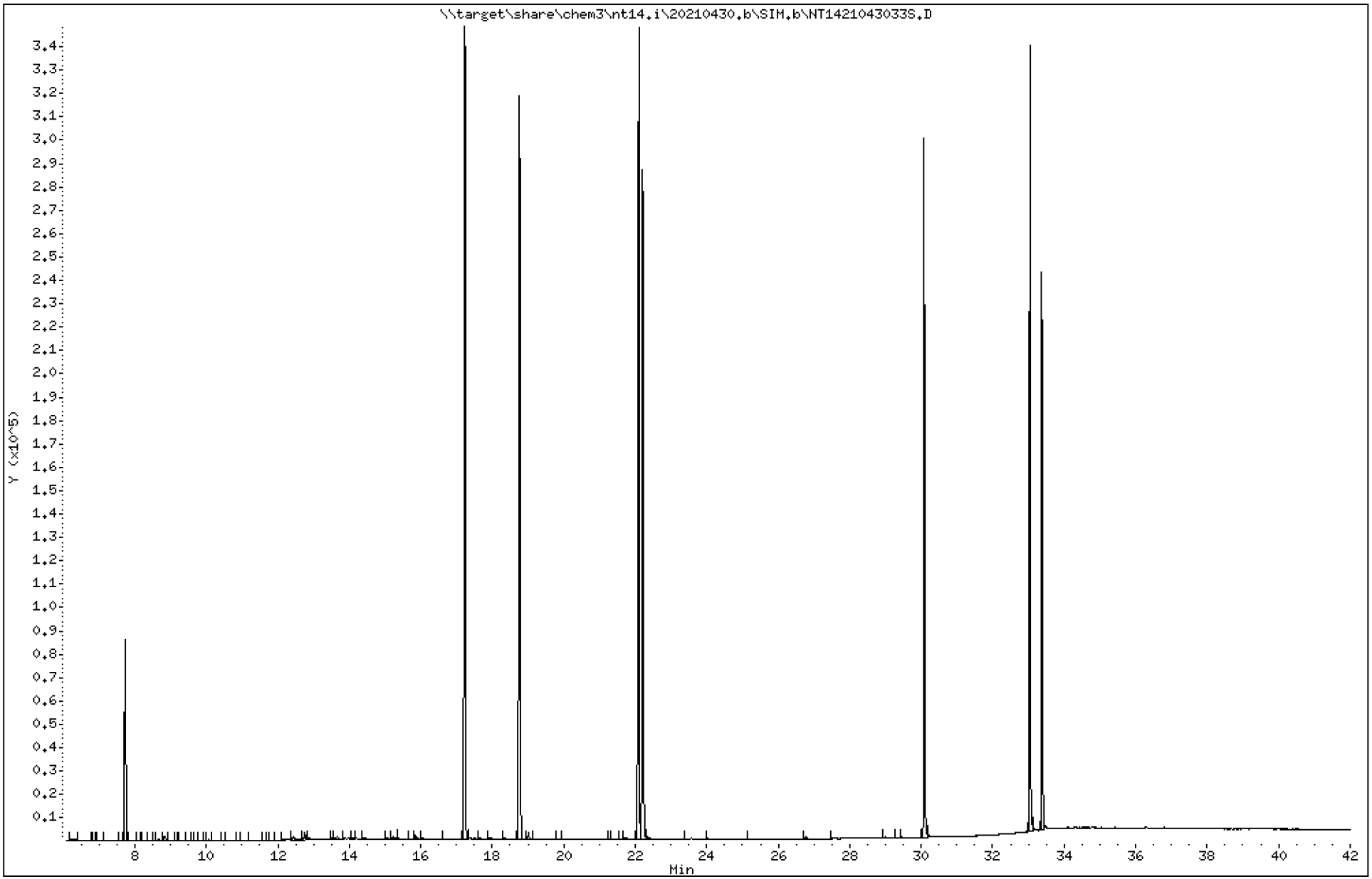
Instrument: nt14.i

Sample Info: BJD0501-BLK2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043033S.D
Lab Smp Id: BJD0501-BLK2
Inj Date : 01-MAY-2021 09:10
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0501-BLK2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 07-May-2021 11:15 yev Quant Type: ISTD
Cal Date : 01-MAY-2021 01:56 Cal File: NT1421043024S.D
Als bottle: 29
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ALKYLRANGES.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
3	C1-Decalin	152	Compound Not Detected.					
4	C2-Decalin	166	Compound Not Detected.					
5	C3-Decalin	180	Compound Not Detected.					
247	C4-Decalin	194	Compound Not Detected.					
8	C1-Naphthalenes	142	Compound Not Detected.					
9	C2-Naphthalenes	156	Compound Not Detected.					
10	C3-Naphthalenes	170	Compound Not Detected.					
11	C4-Naphthalenes	184	Compound Not Detected.					
13	C1-Benzothiophenes	148	Compound Not Detected.					
14	C2-Benzothiophenes	162	Compound Not Detected.					
15	C3_Benzothiophenes	176	Compound Not Detected.					
27	C1-Fluorenes	180	Compound Not Detected.					
* 25	Fluorene-d10	176	18.762	18.774	(1.000)	632635	2.00000	
28	C2-Fluorenes	194	Compound Not Detected.					
29	C3-Fluorenes	208	Compound Not Detected.					
31	C1-Dibenzothiophenes	198	Compound Not Detected.					
32	C2-Dibenzothiophenes	212	Compound Not Detected.					
33	C3-Dibenzothiophenes	226	Compound Not Detected.					
34	C4-Dibenzothiophenes	240	Compound Not Detected.					
38	C1-Phenanthrenes/Anthracenes	192	Compound Not Detected.					
* 250	Anthracene-d10	188	22.205	22.216	(1.000)	566991	2.00000	
39	C2-Phenanthrenes/Anthracenes	206	Compound Not Detected.					
40	C3-Phenanthrenes/Anthracenes	220	Compound Not Detected.					
41	C4-Phenanthrenes/Anthracenes	234	Compound Not Detected.					
48	C1-Fluoranthenes/Pyrenes	216	Compound Not Detected.					
49	C2-Fluoranthenes/Pyrenes	230	Compound Not Detected.					
50	C3-Fluoranthenes/Pyrenes	244	Compound Not Detected.					
249	C4-Fluoranthenes/Pyrenes	258	Compound Not Detected.					
52	C1-Naphthobenzothiophenes	248	Compound Not Detected.					
53	C2-Naphthobenzothiophenes	262	Compound Not Detected.					
54	C3-Naphthobenzothiophenes	276	Compound Not Detected.					
248	C4-Naphthobenzothiophenes	290	Compound Not Detected.					
58	C1-Benzo(a)anthracenes/Chrysen	242	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
59	C2-Benzo(a)anthracenes/Chrysen	256	Compound Not Detected.					
60	C3-Benzo(a)anthracenes/Chrysen	270	Compound Not Detected.					
61	C4-Benzo(a)anthracenes/Chrysen	284	Compound Not Detected.					
71	C1-Dibenzo(a)anthracenes	292	Compound Not Detected.					
* 251	Benzo(e)pyrene-d12	264	33.036	33.037	(1.000)	557788	2.00000	
72	C2-Dibenzo(a)anthracenes	306	Compound Not Detected.					
73	C3-Dibenzo(a)anthracenes	320	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043033S.D
Lab Smp Id: BJD0501-BLK2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

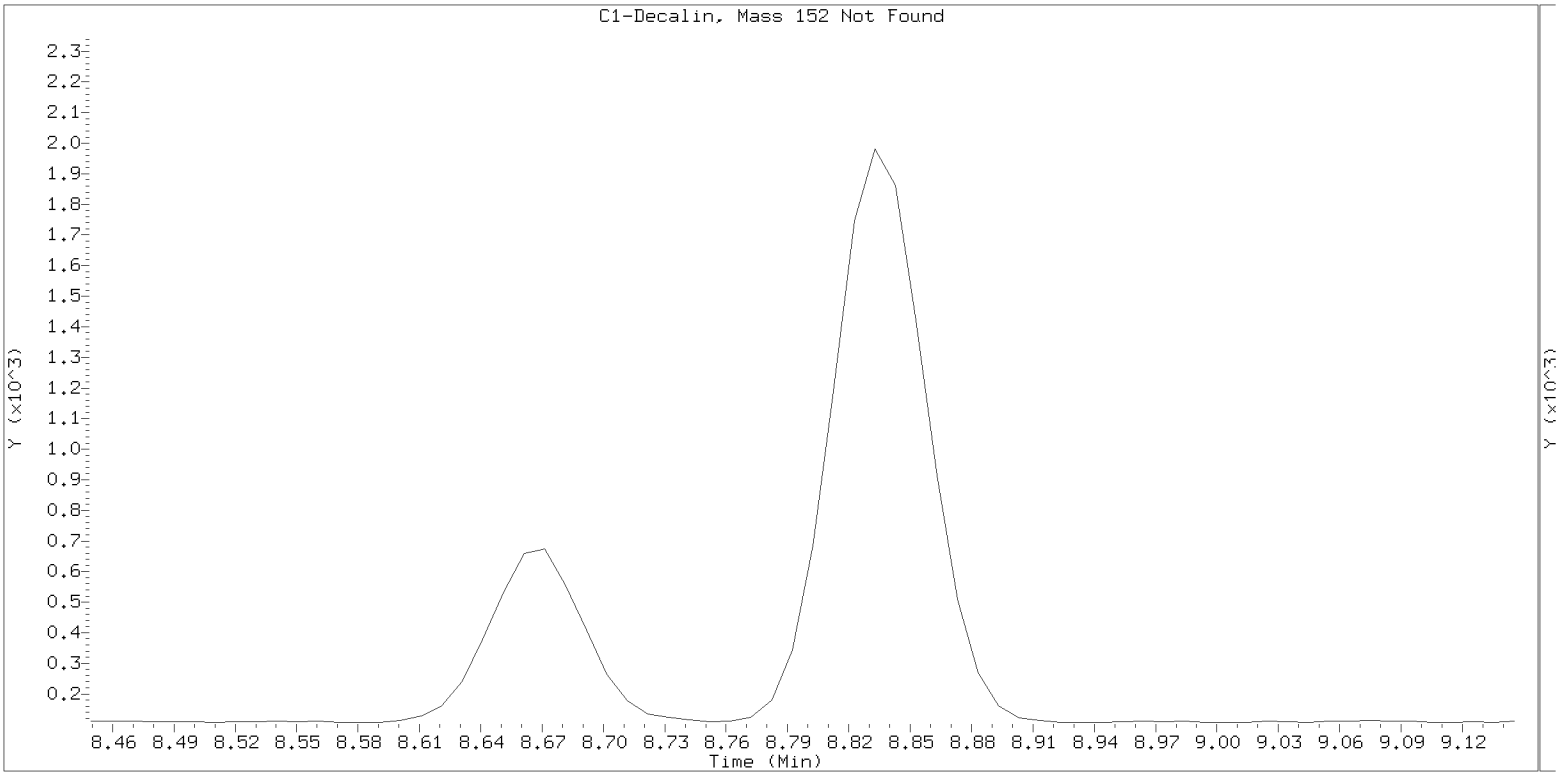
		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	615800	307900	1231600	632635	2.73
250 Anthracene-d10	563384	281692	1126768	566991	0.64
251 Benzo(e)pyrene-d1	606671	303336	1213342	557788	-8.06

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.76	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.21	-0.05
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.04	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

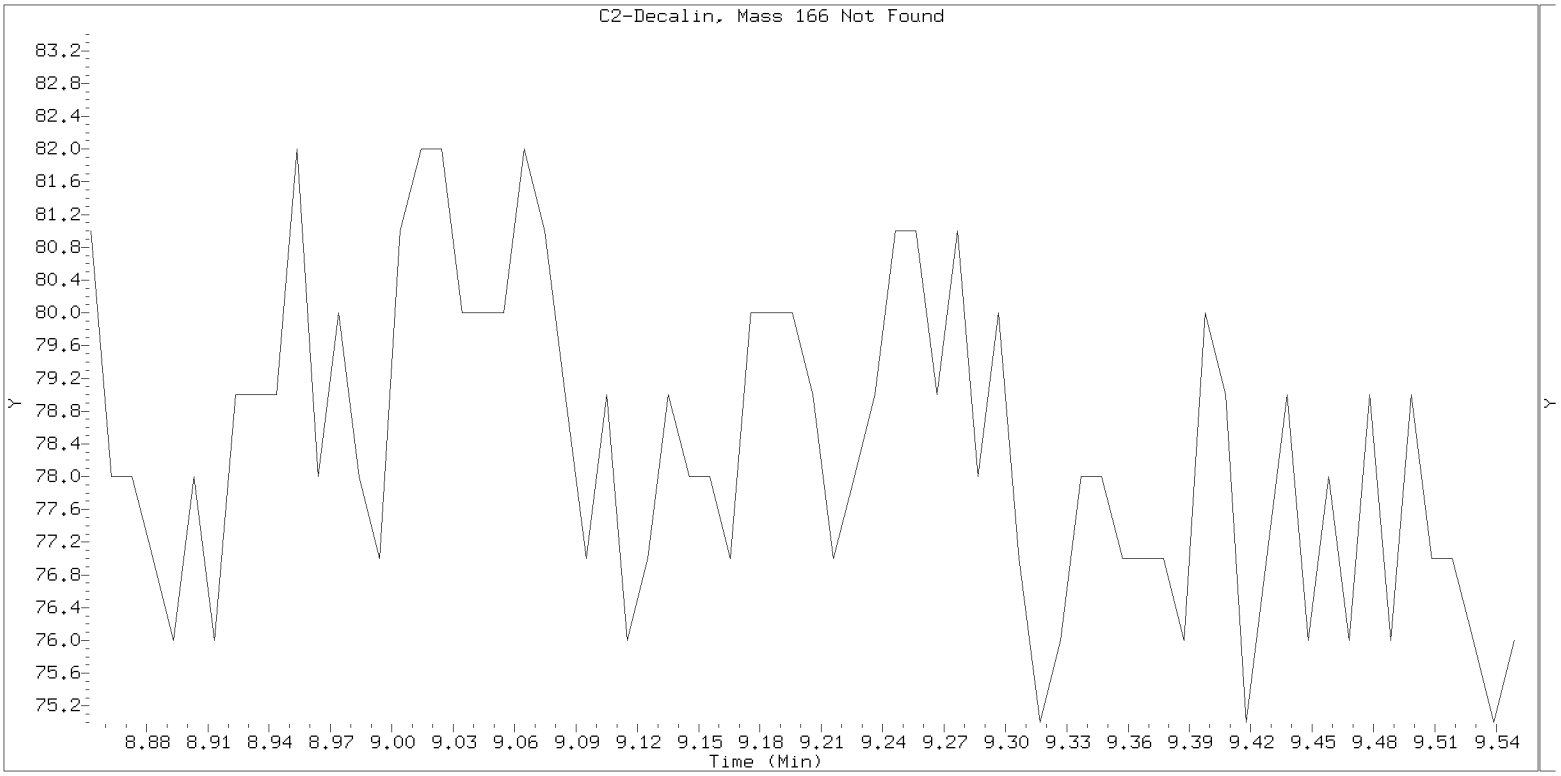
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 09:10



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 09:10



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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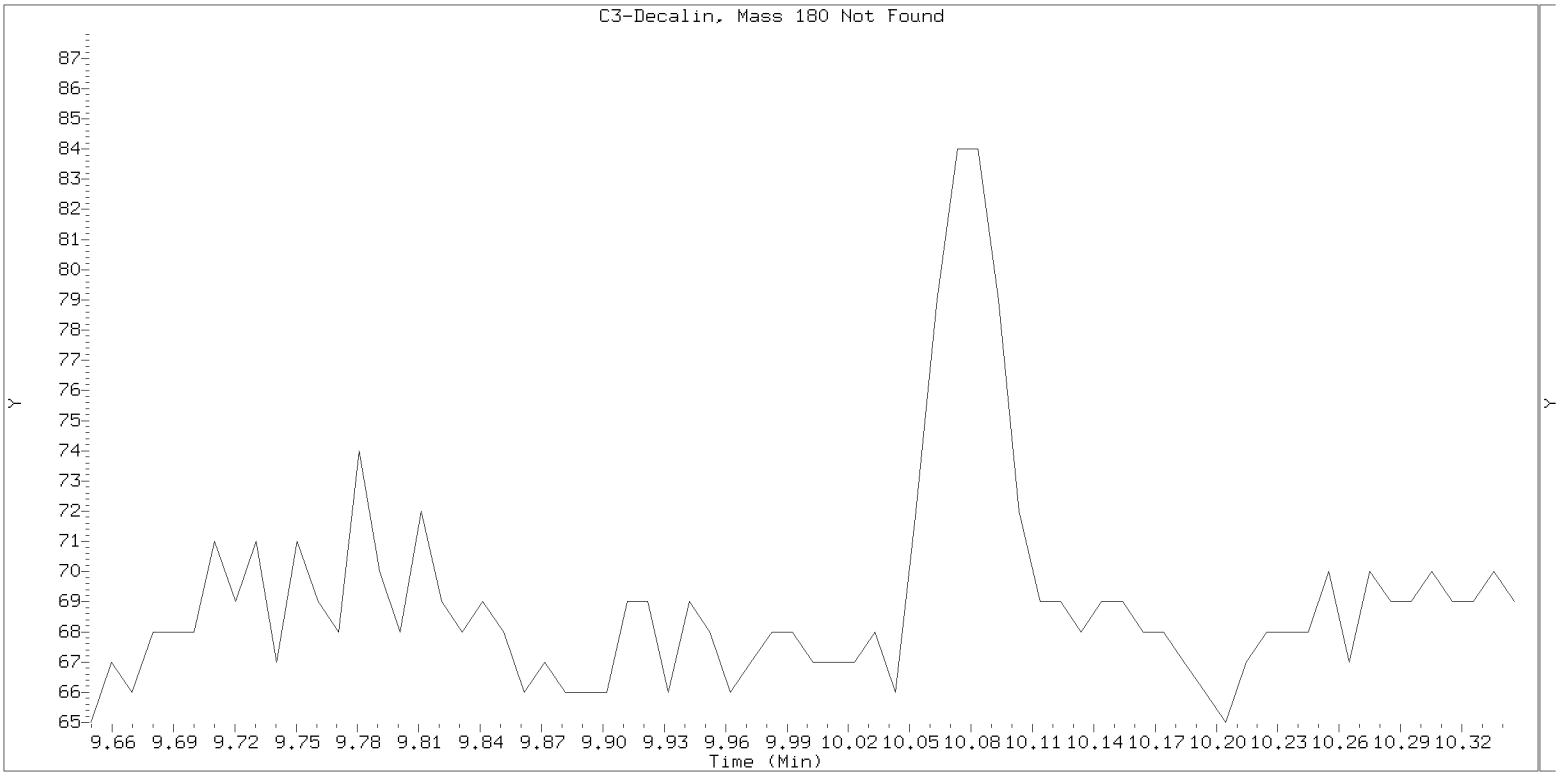

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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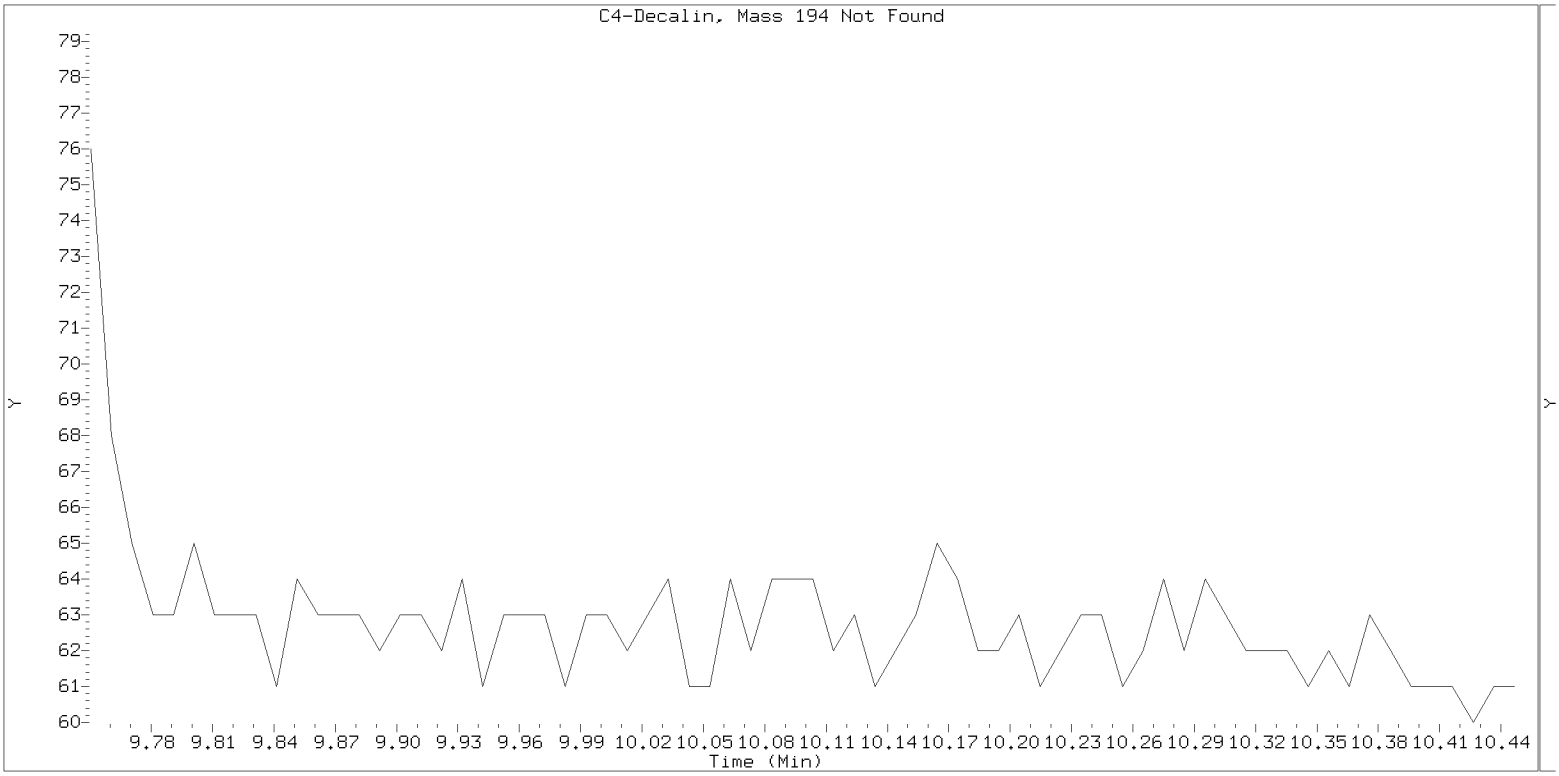
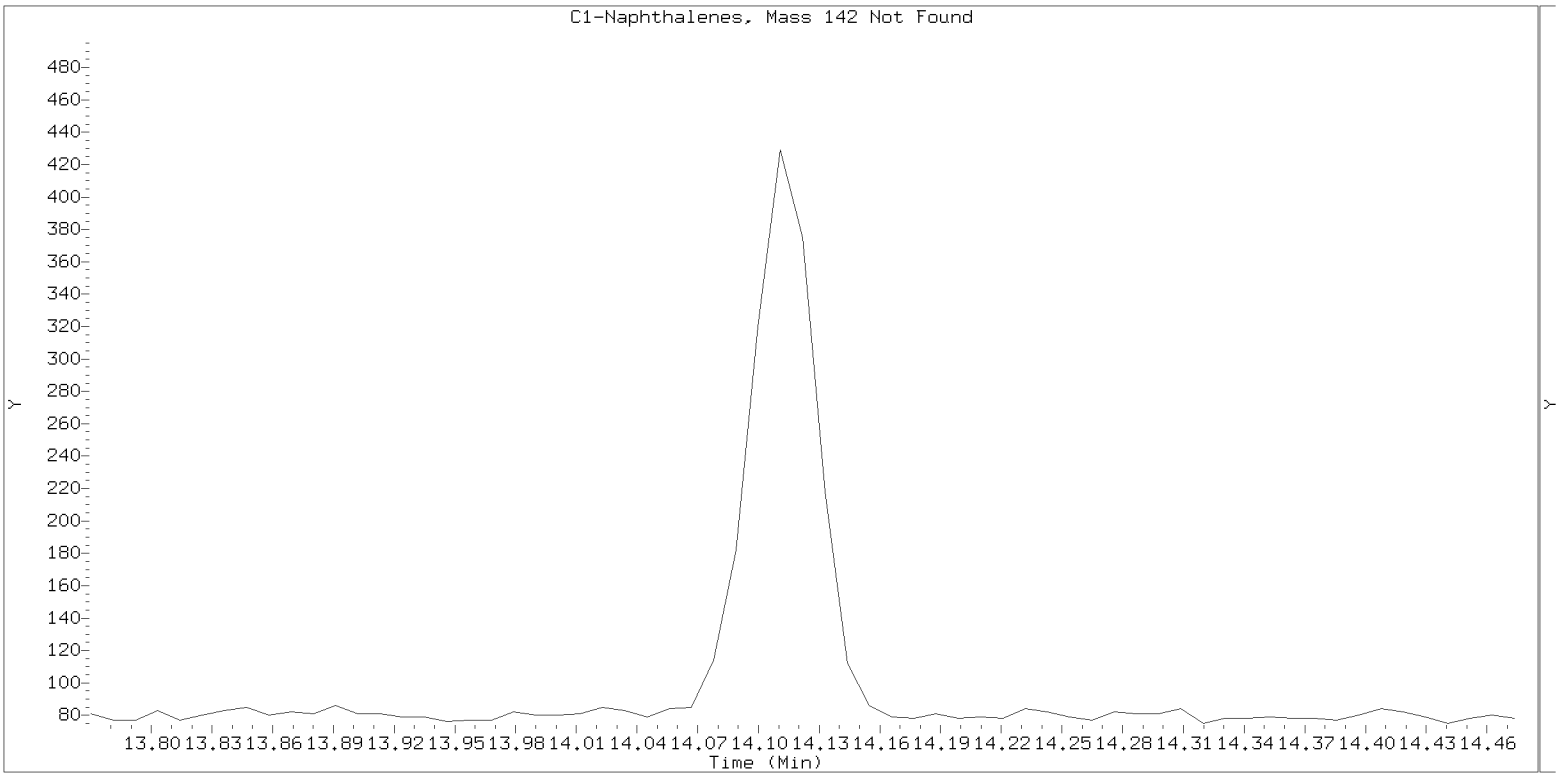
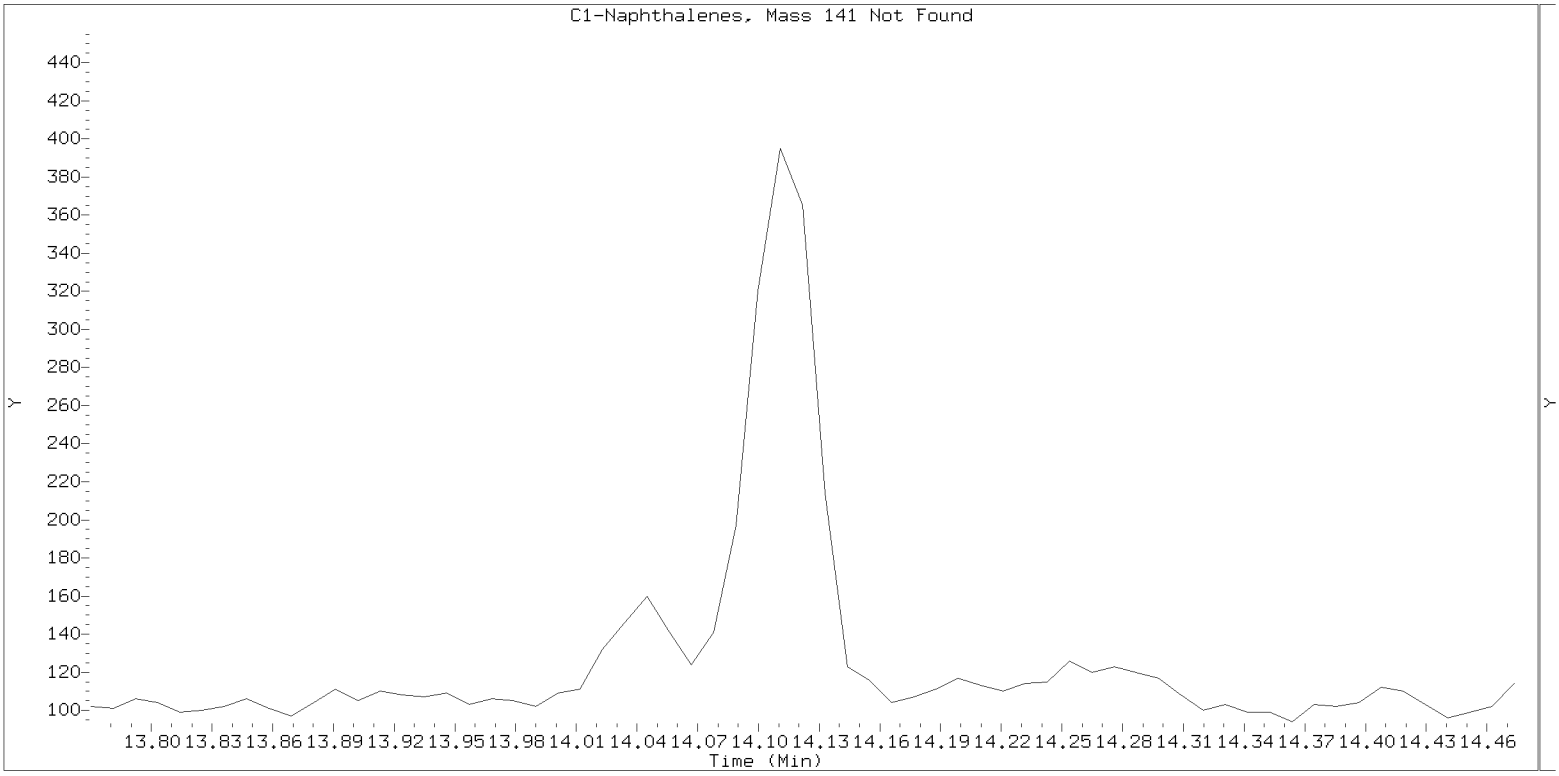
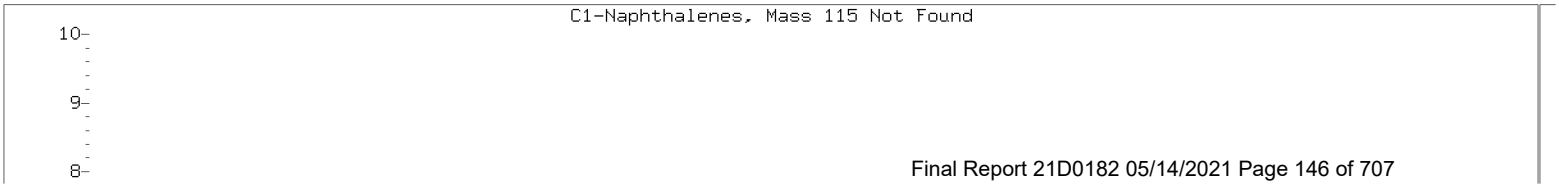


SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 09:10

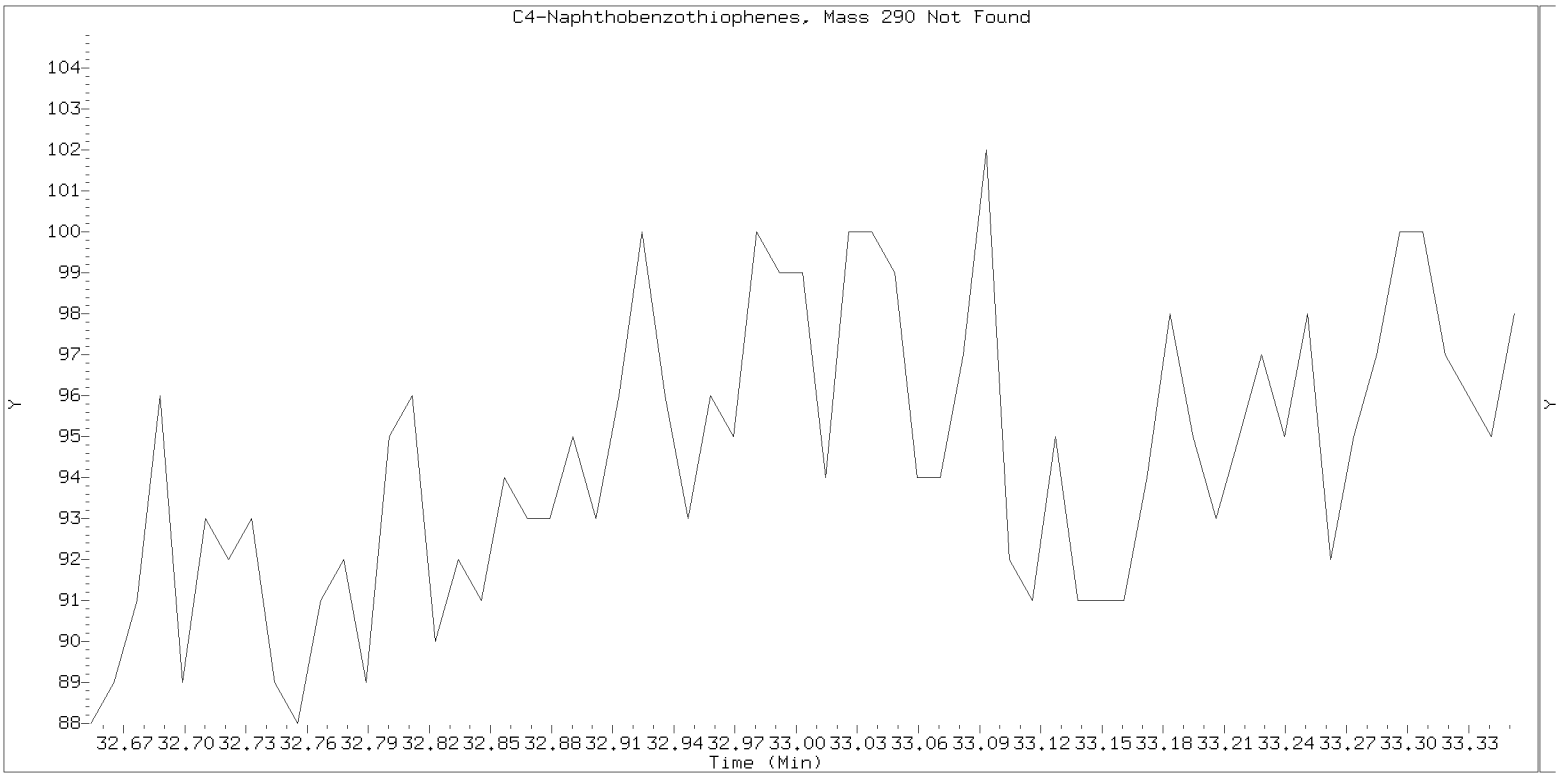






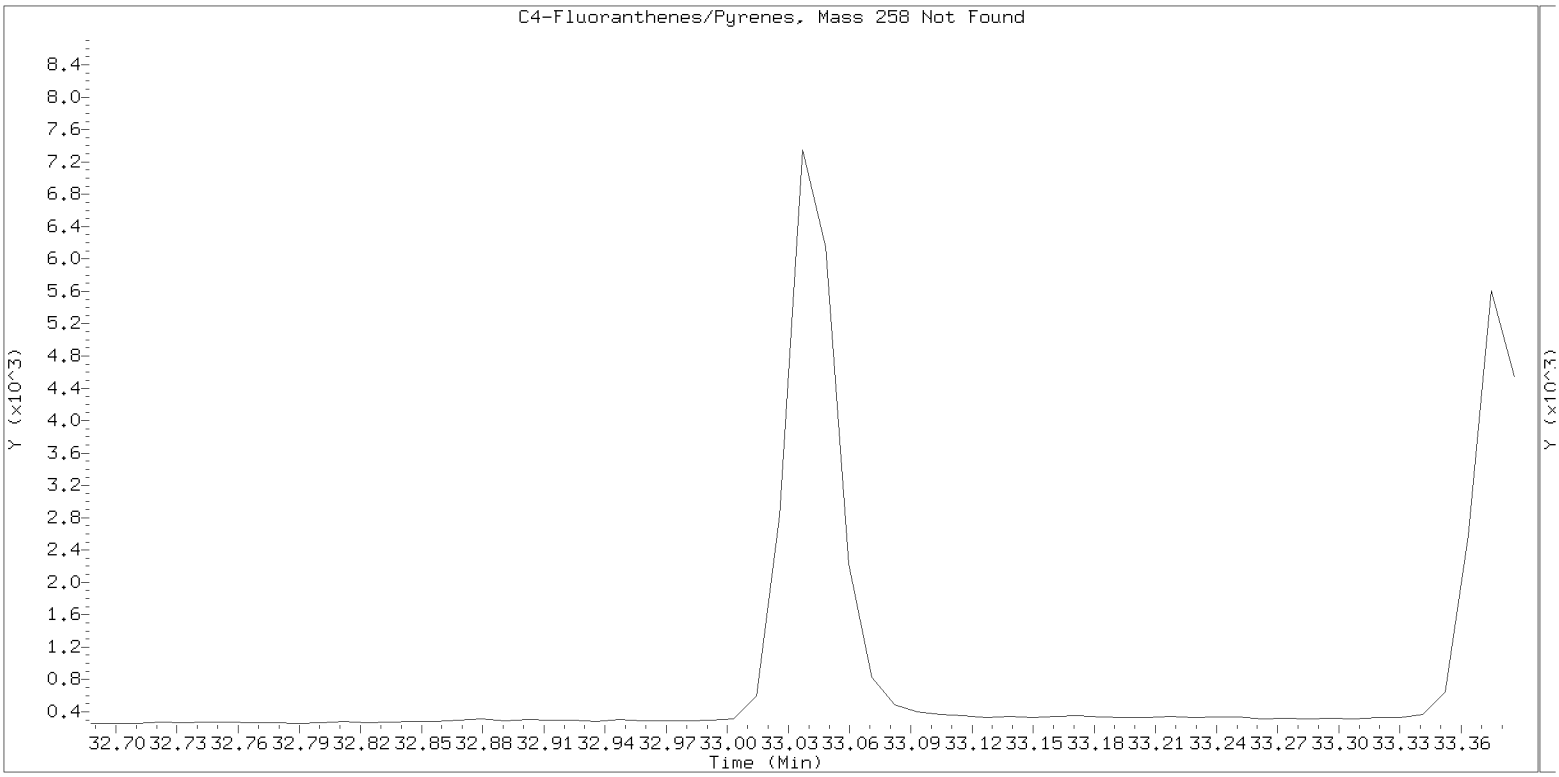
SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 09:10



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
nt14.i, SIM.b\ALKYLRANGES.m, 01-MAY-2021 09:10



SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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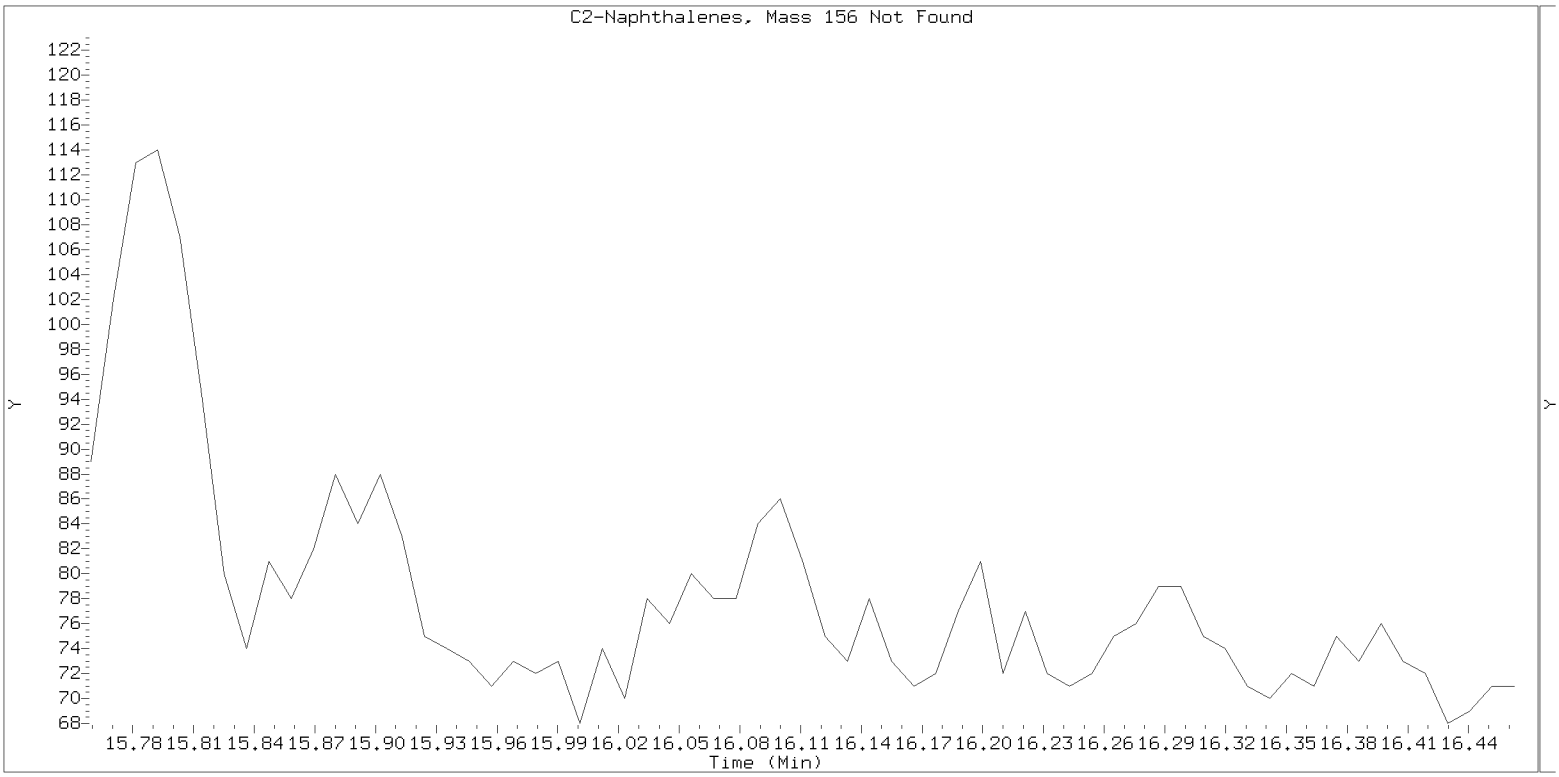

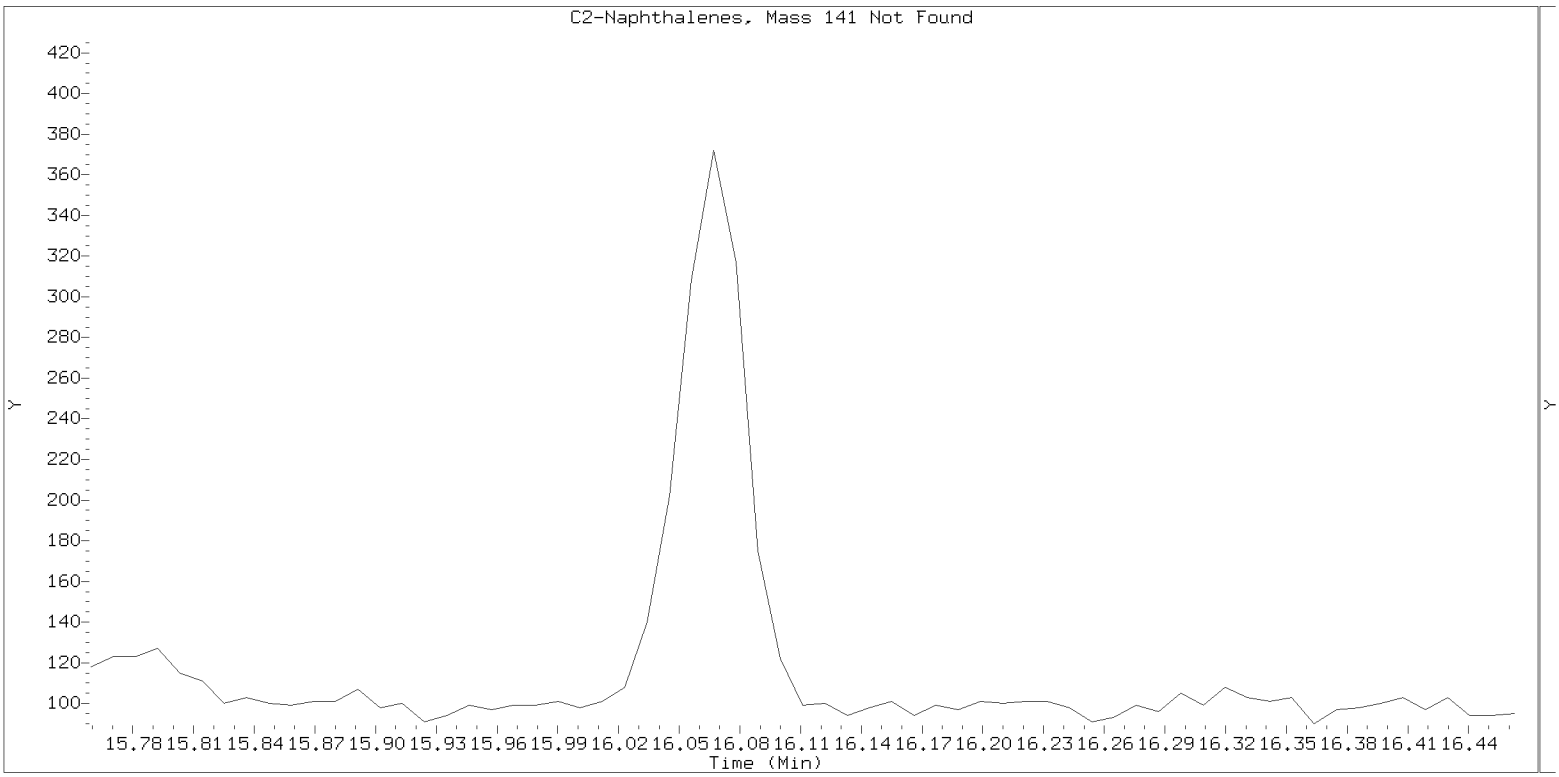

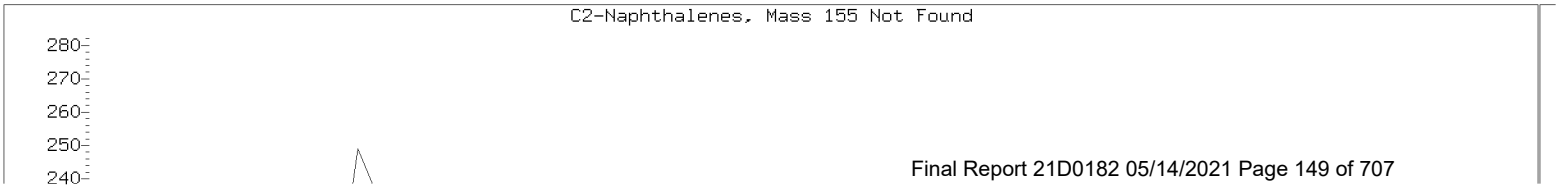

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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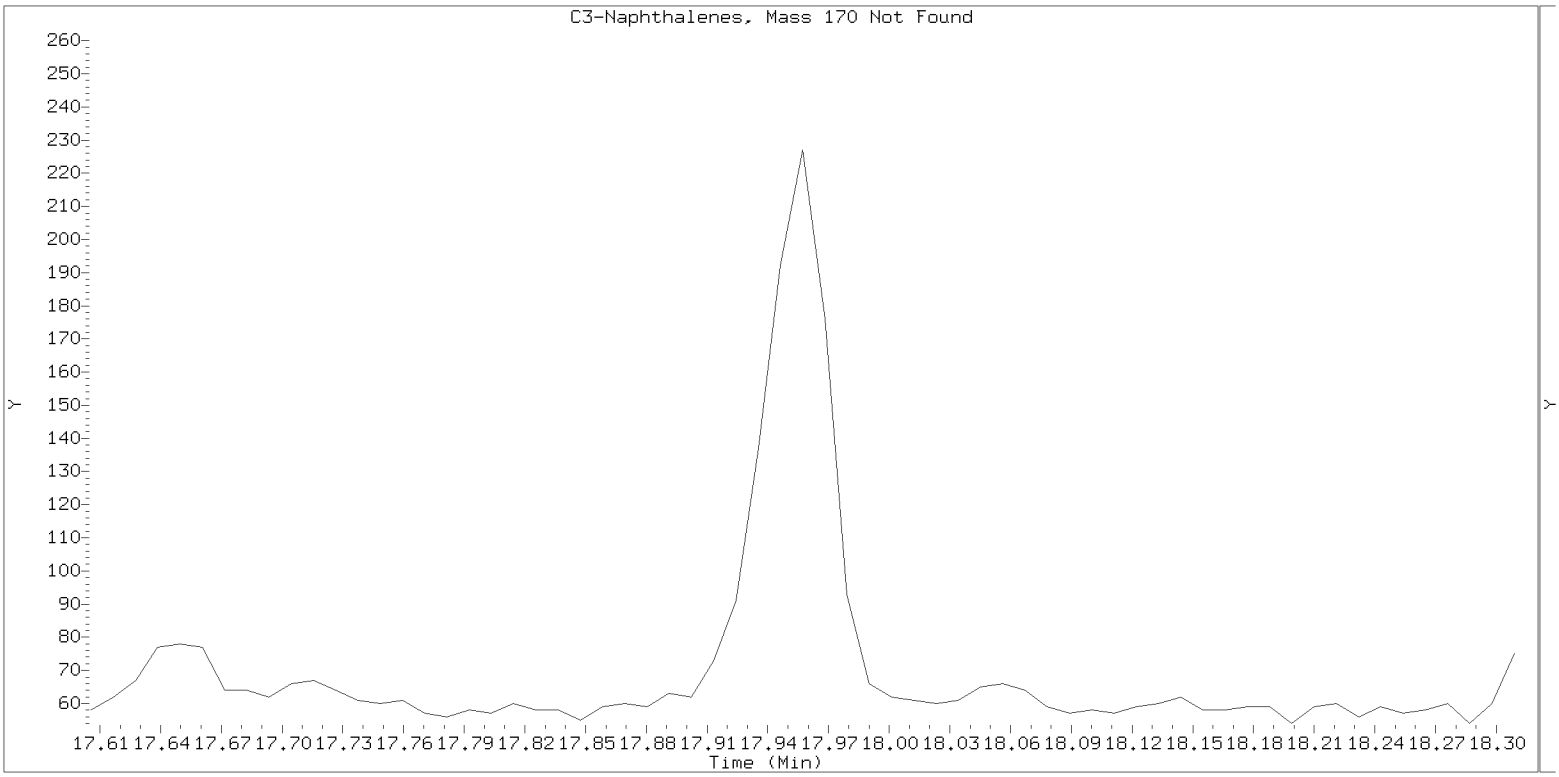

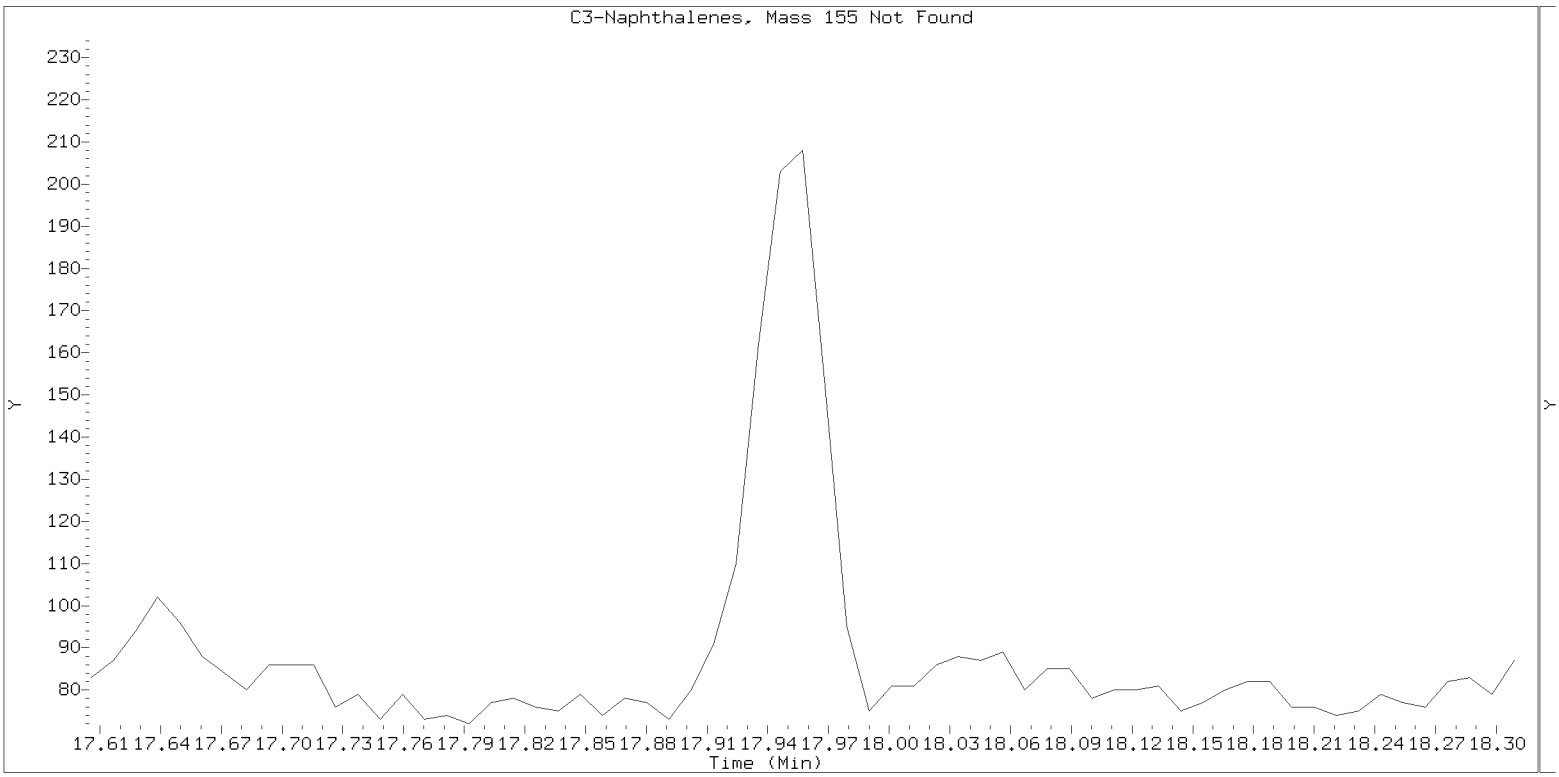

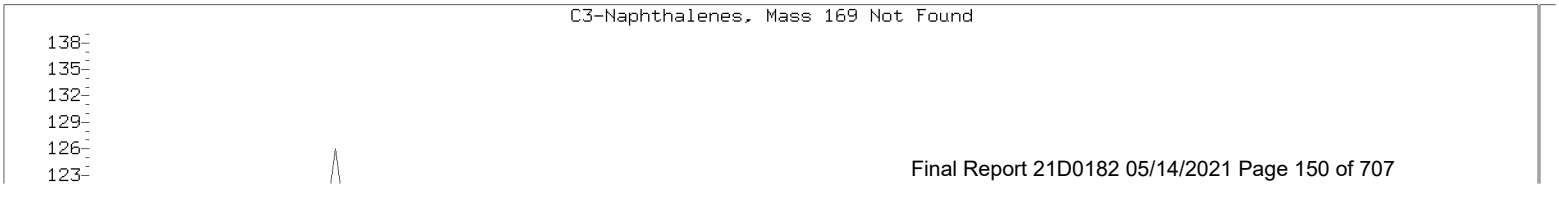

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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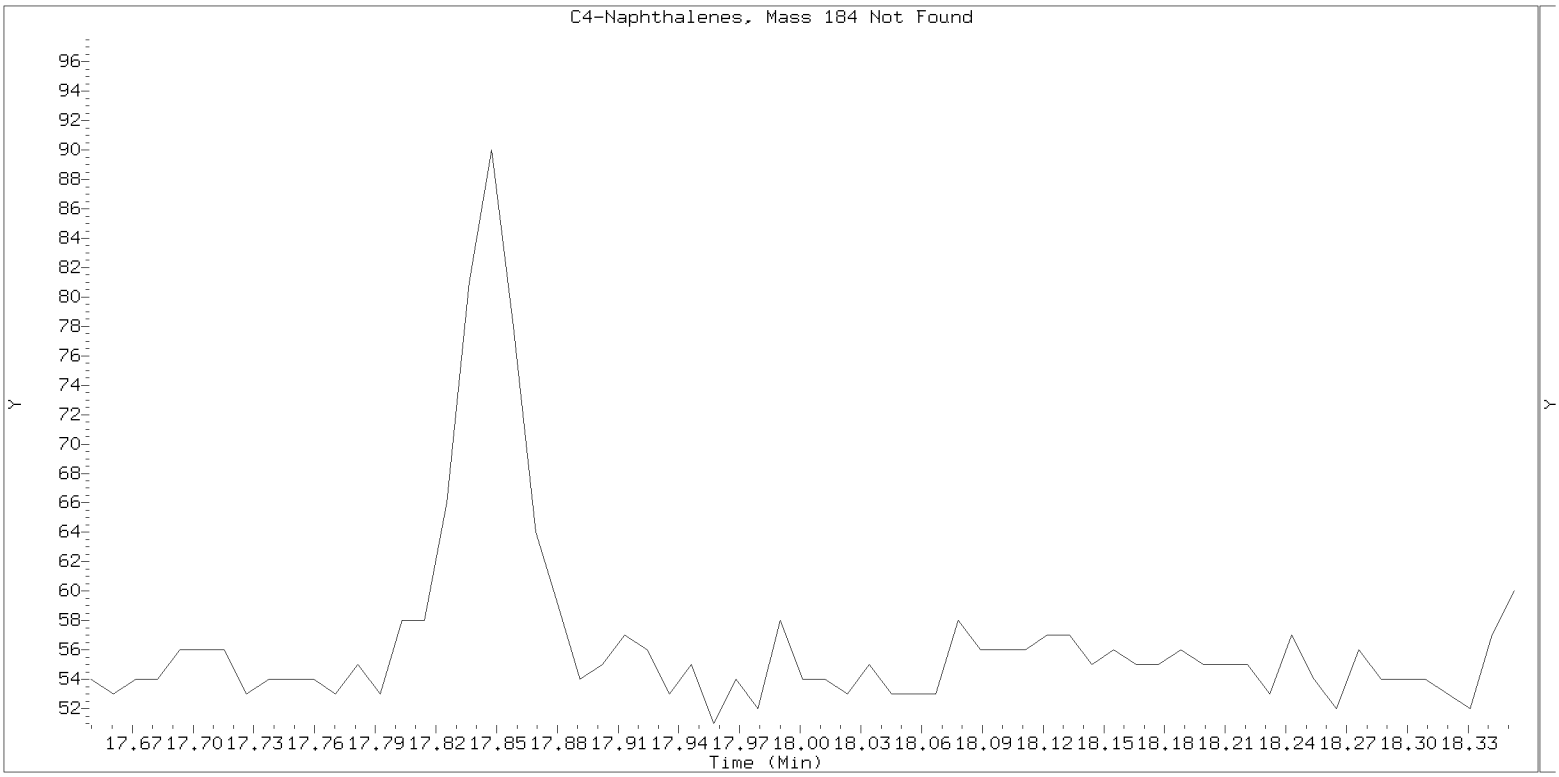

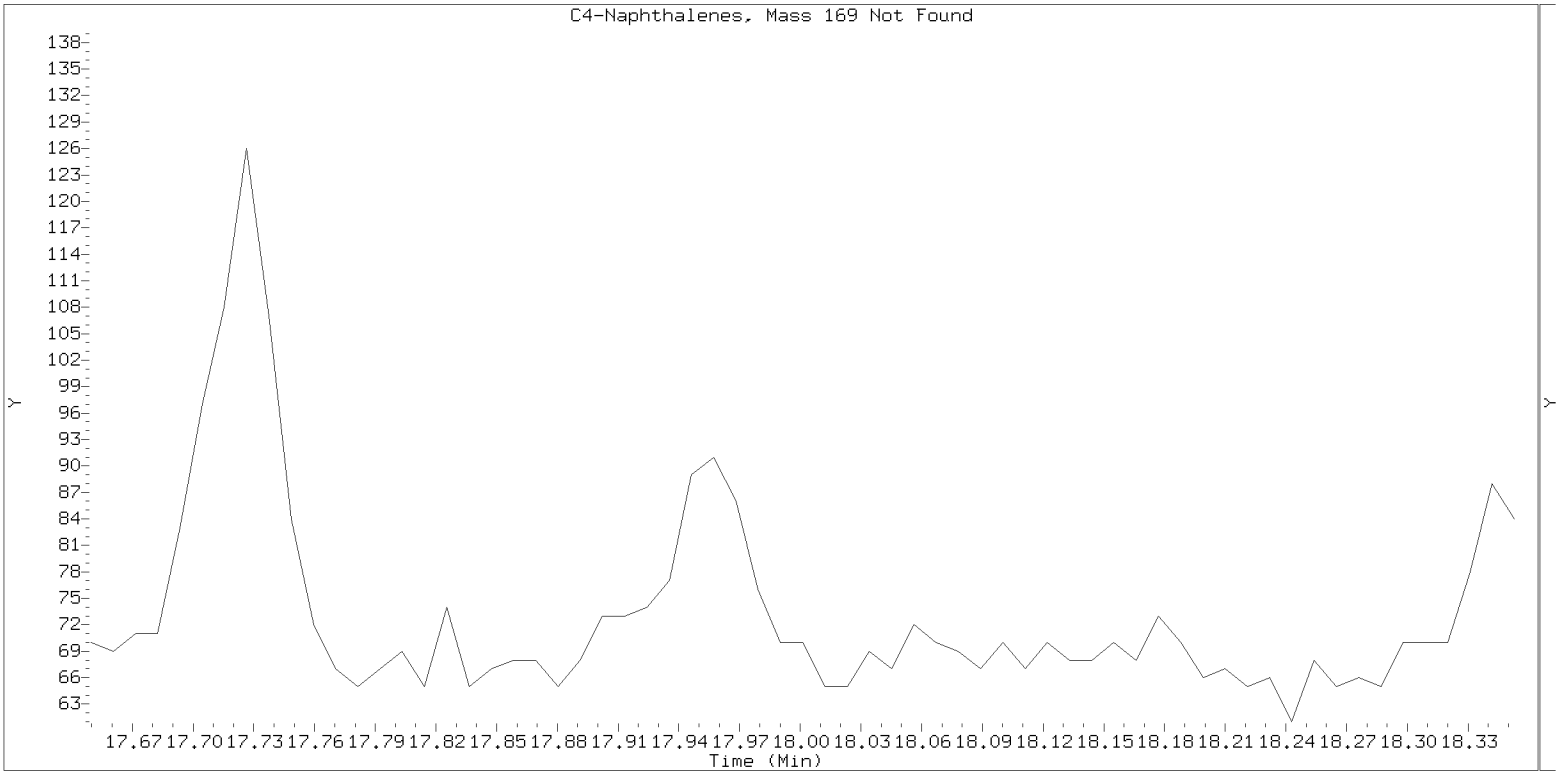

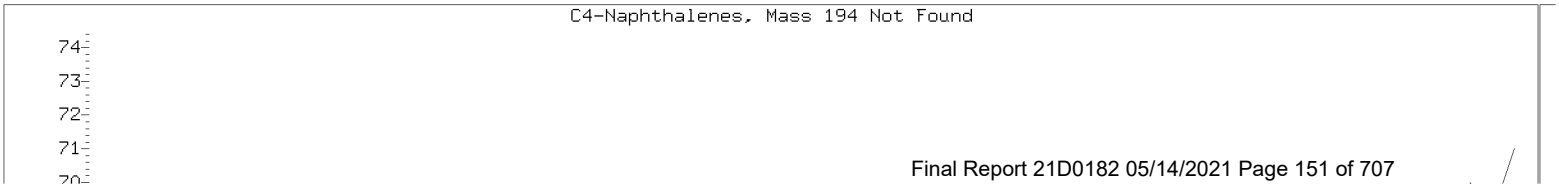

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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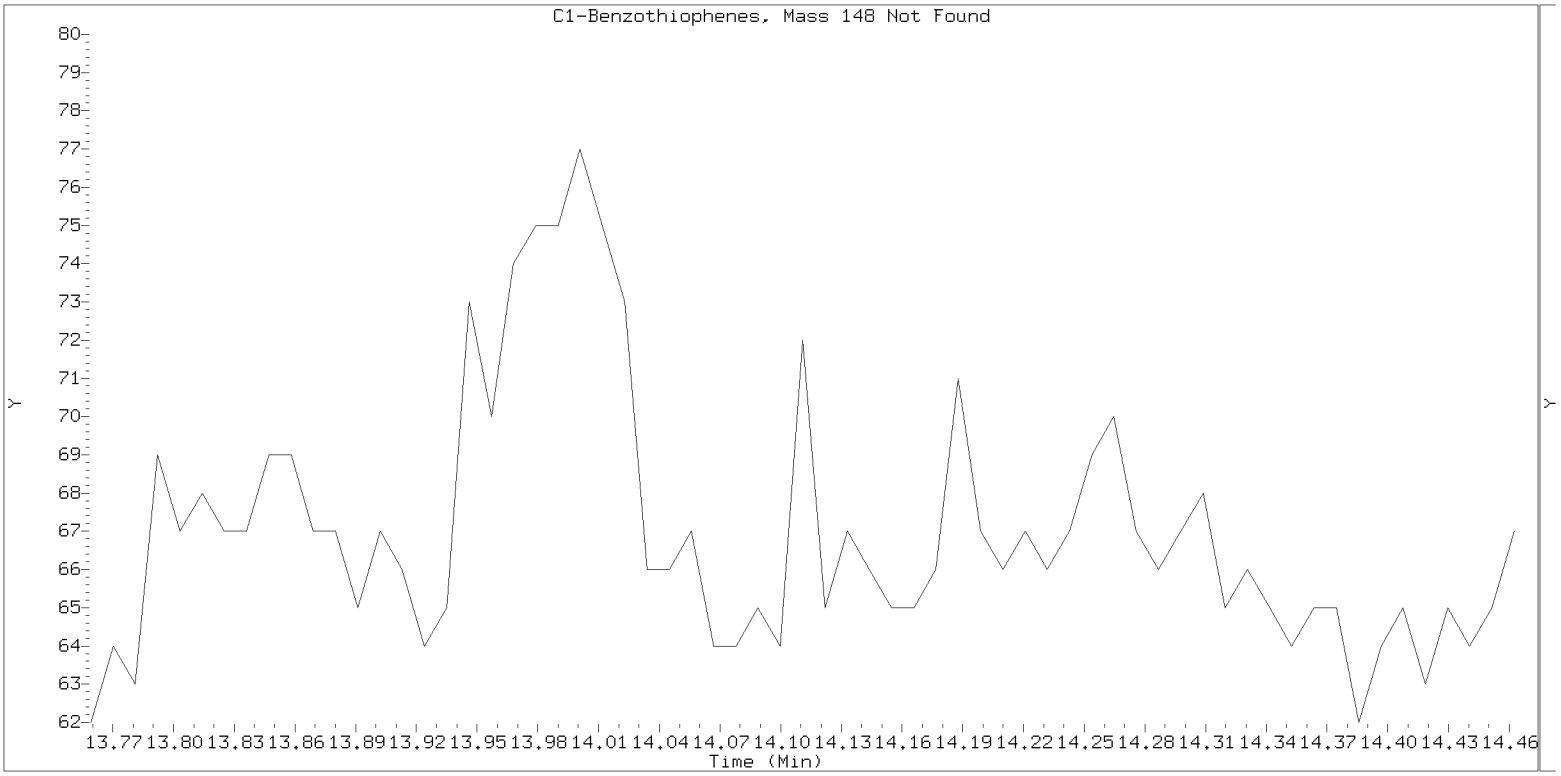

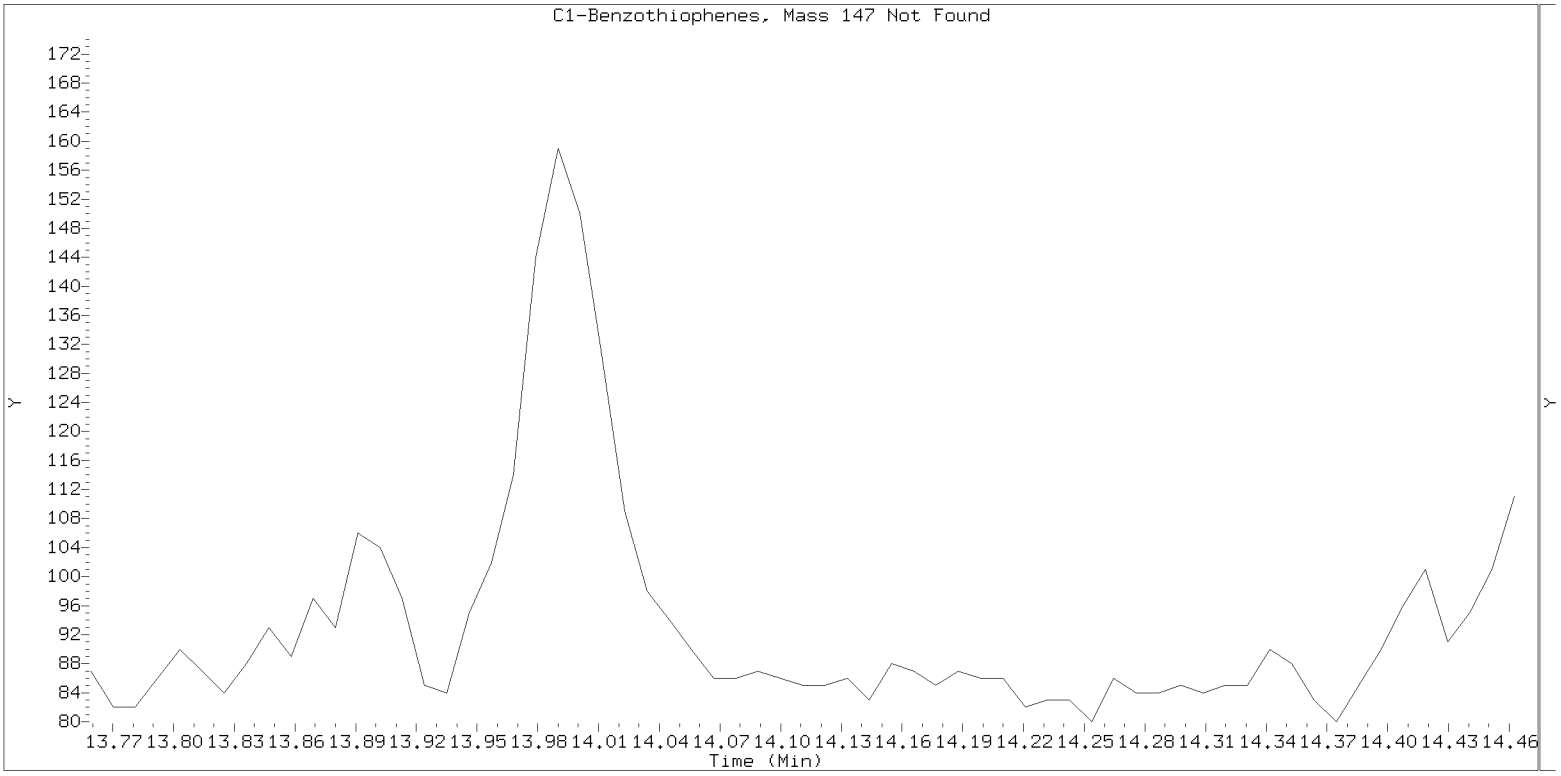

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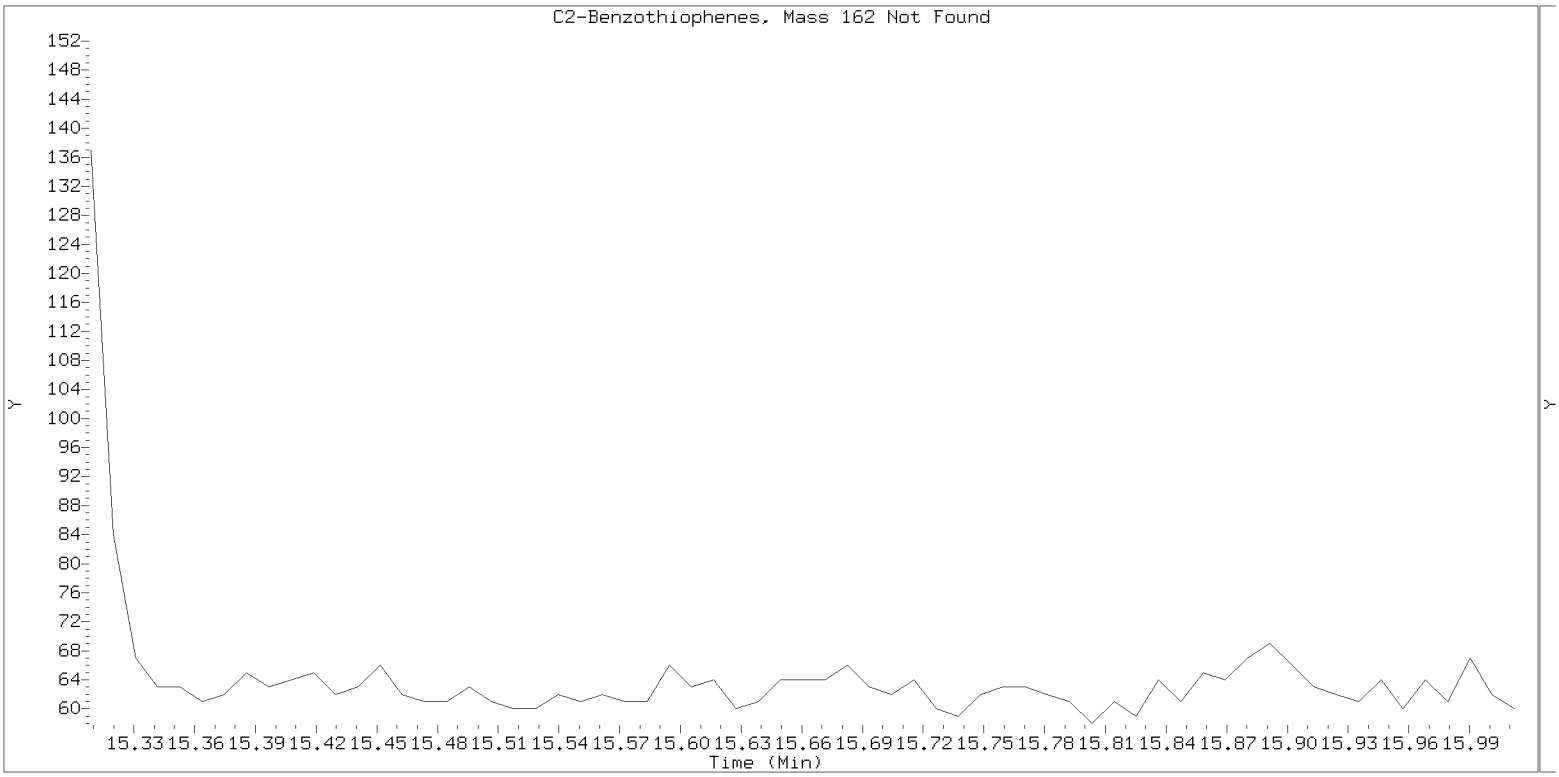

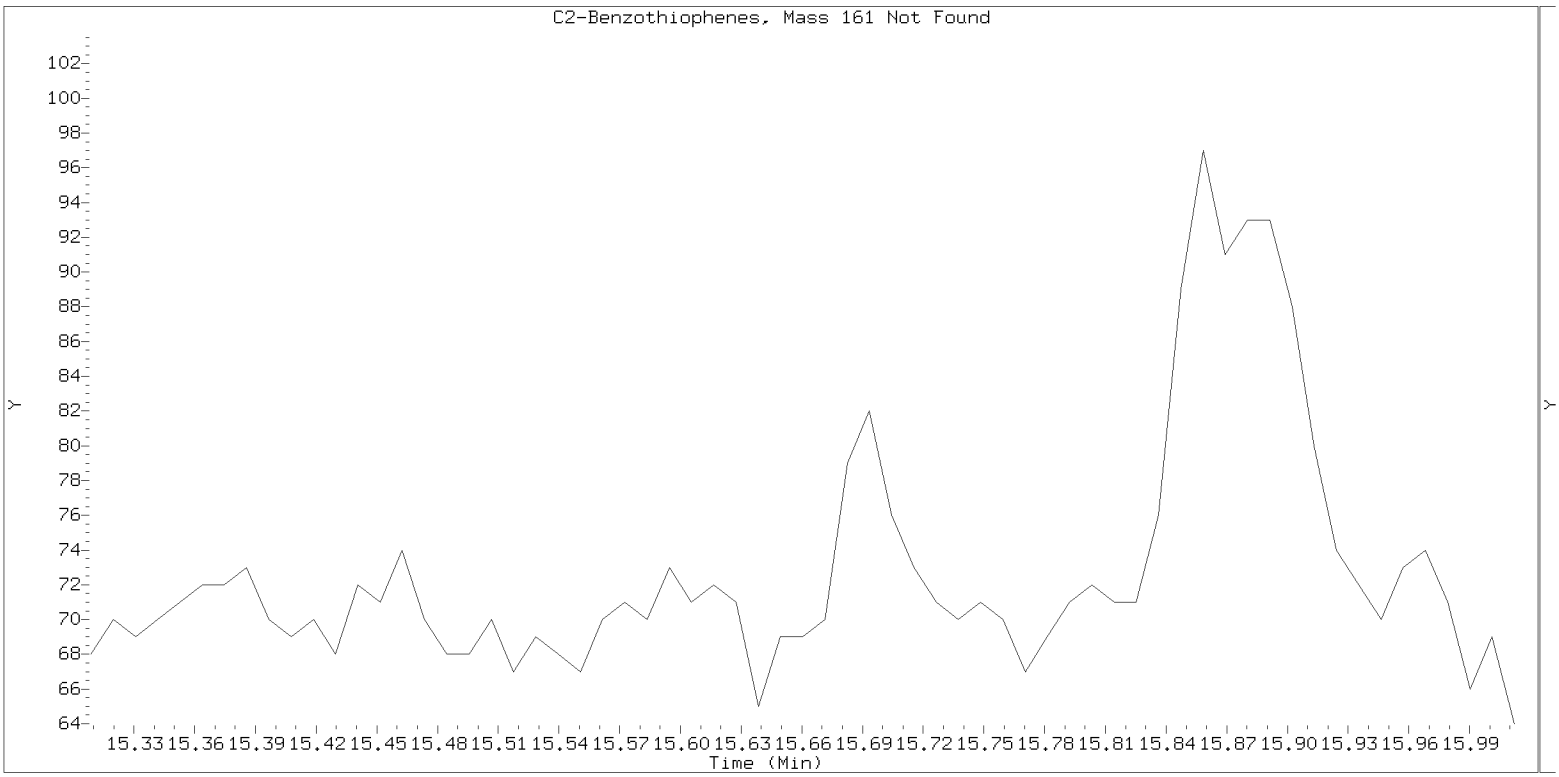

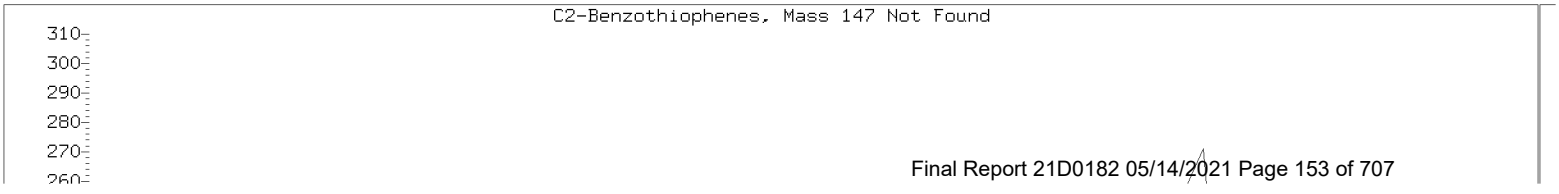

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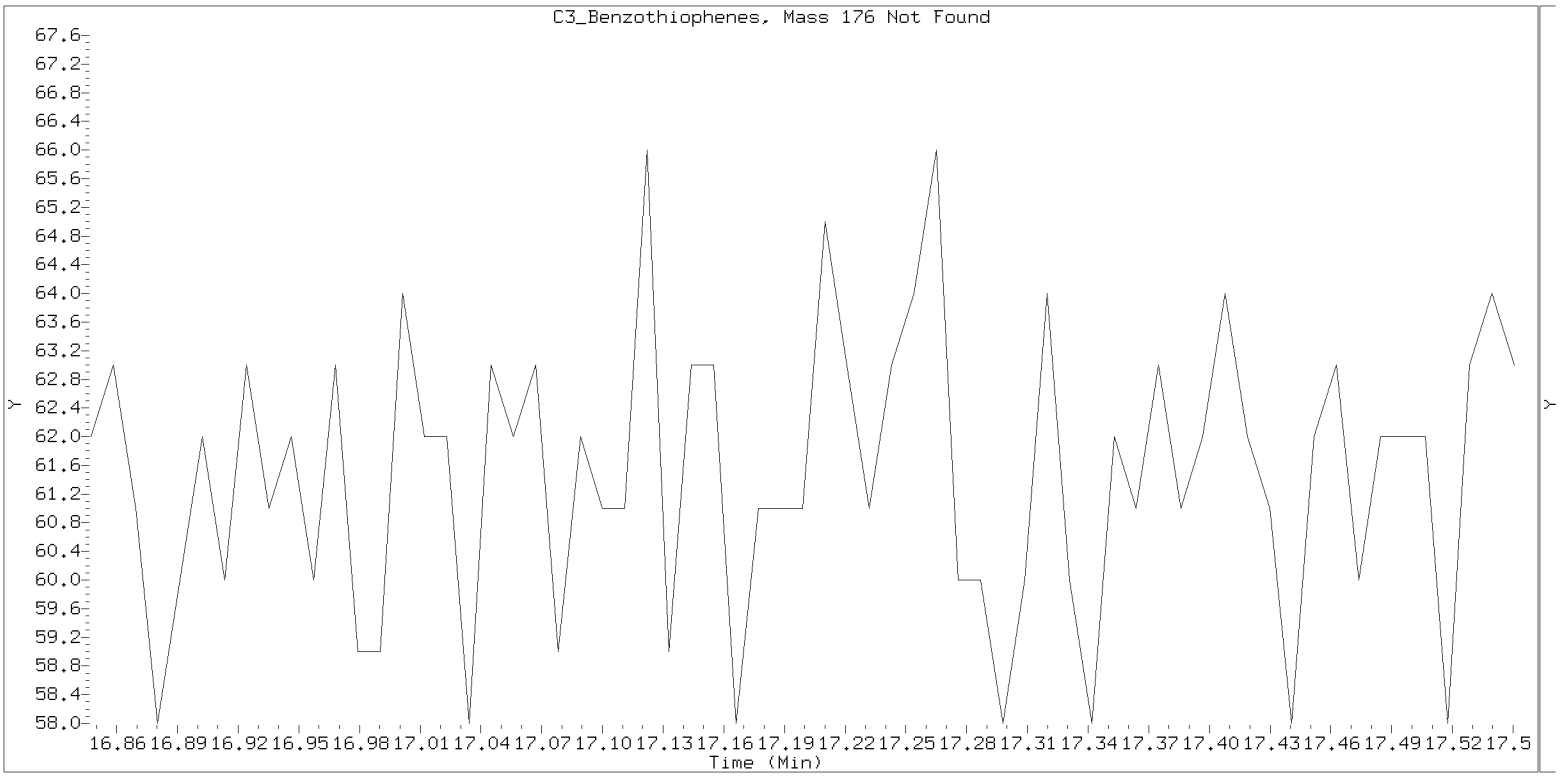

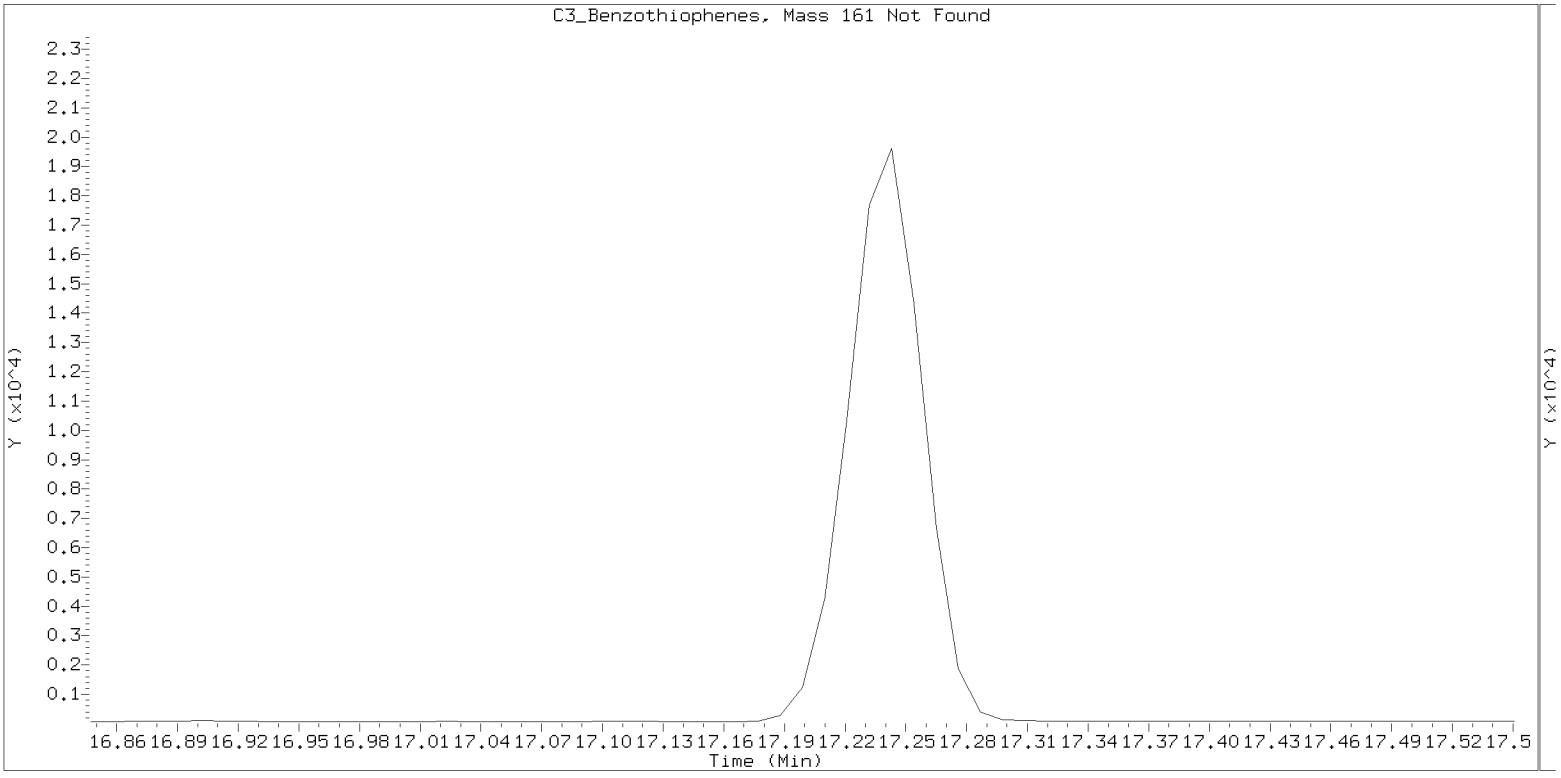

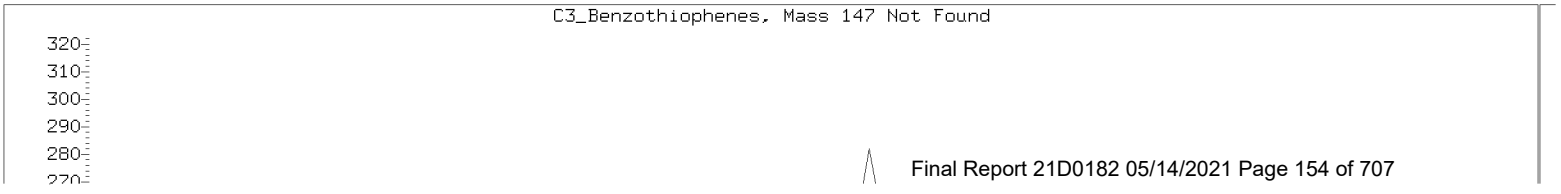

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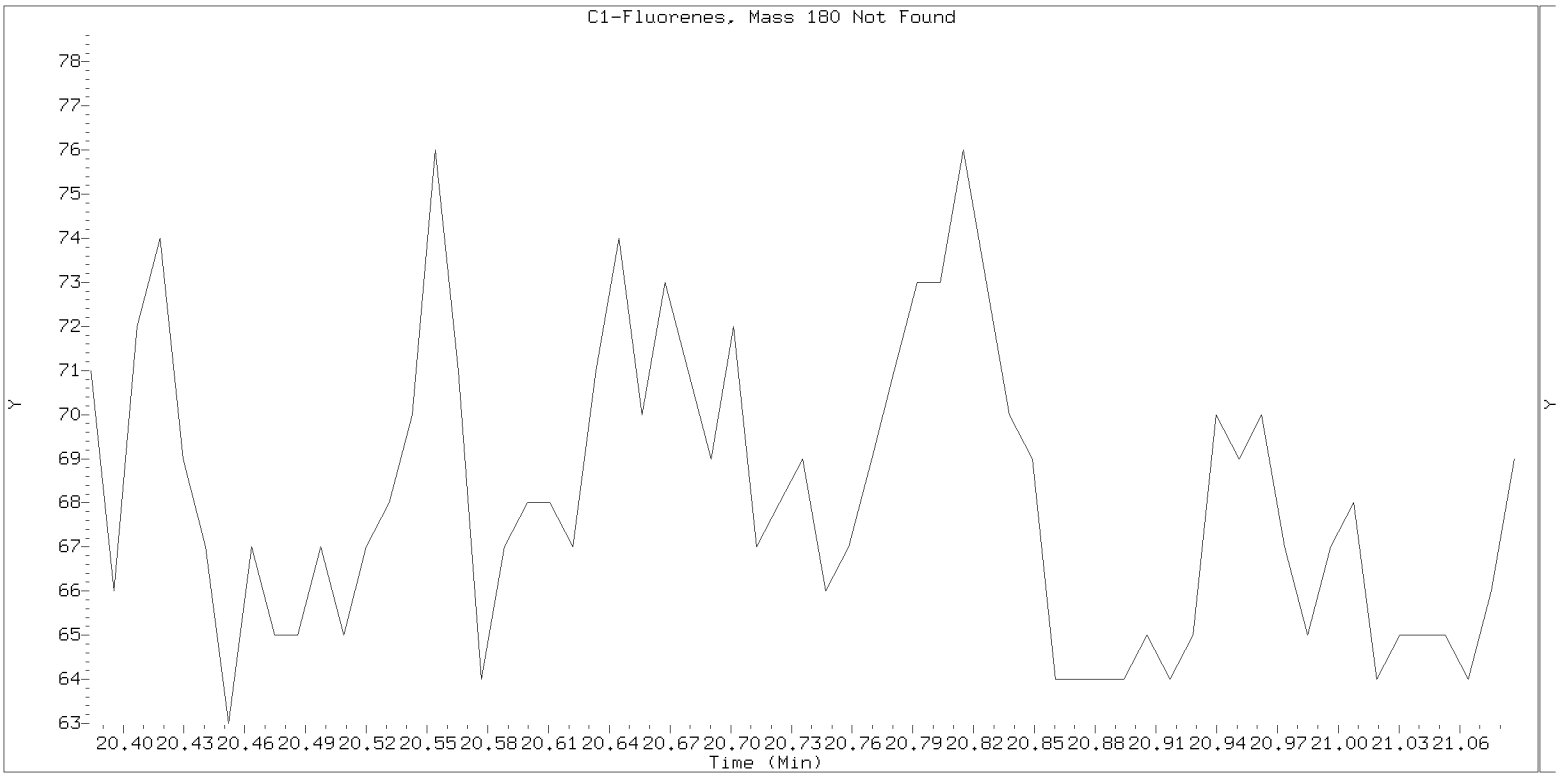

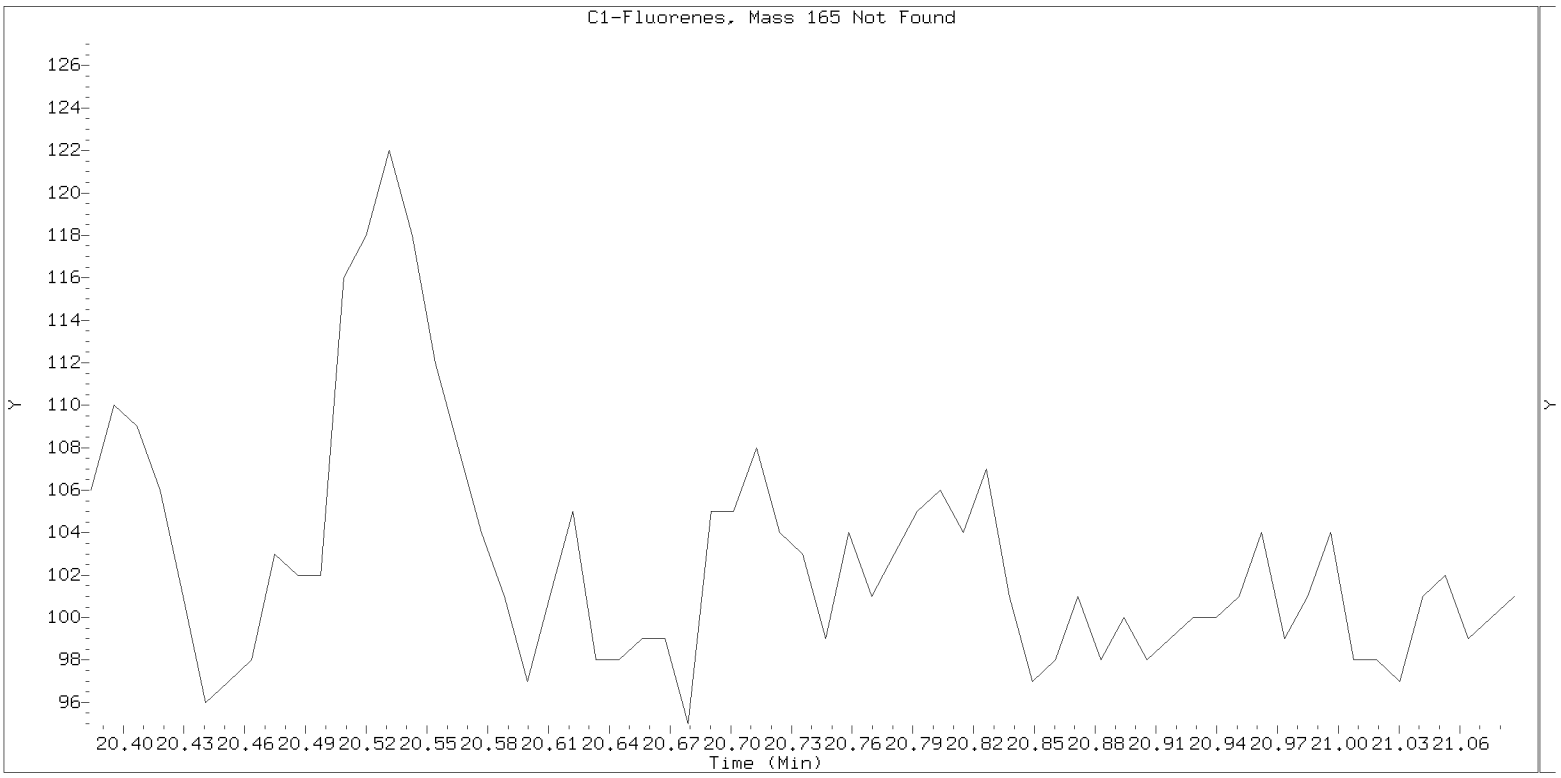

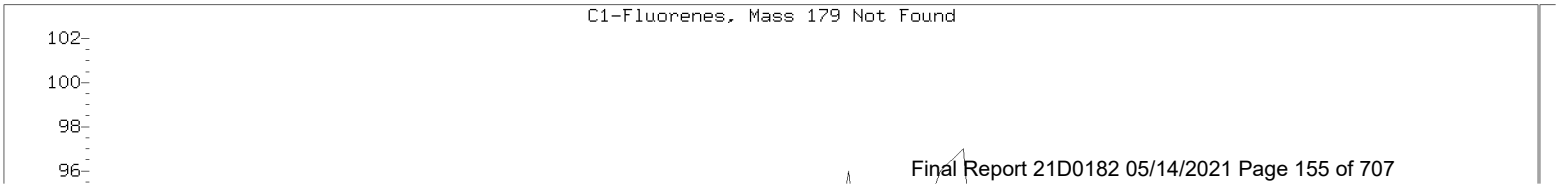

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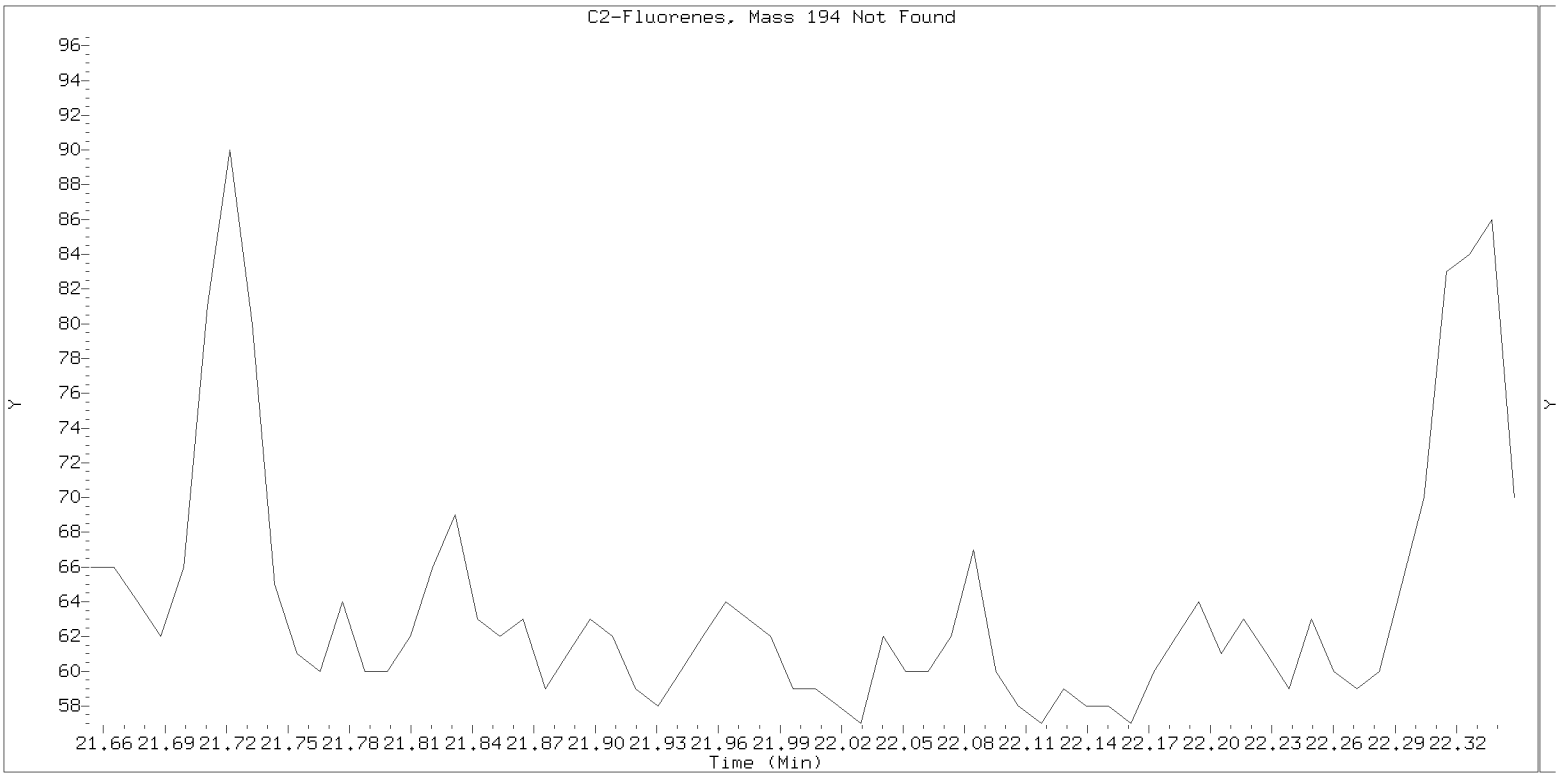

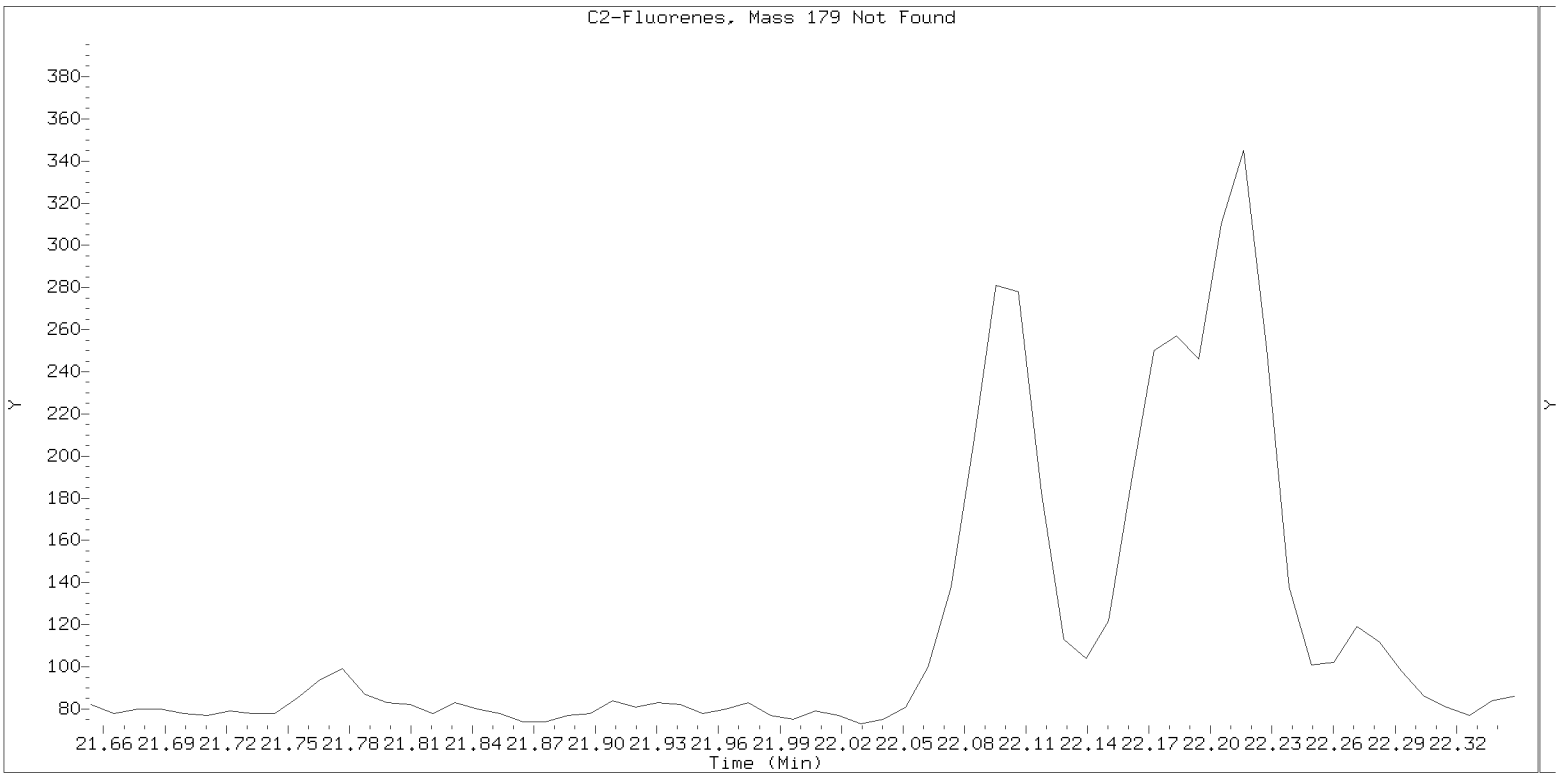

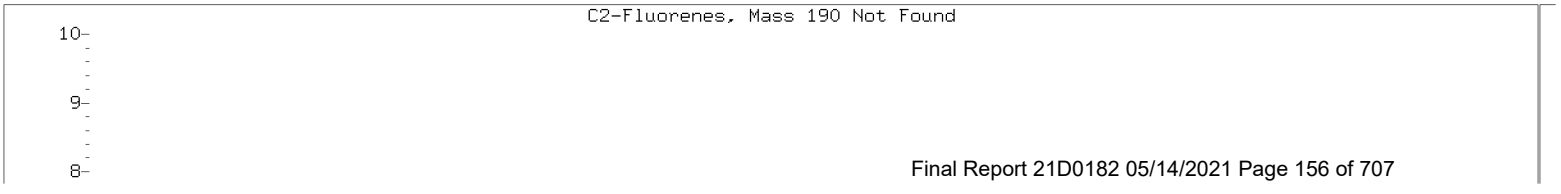

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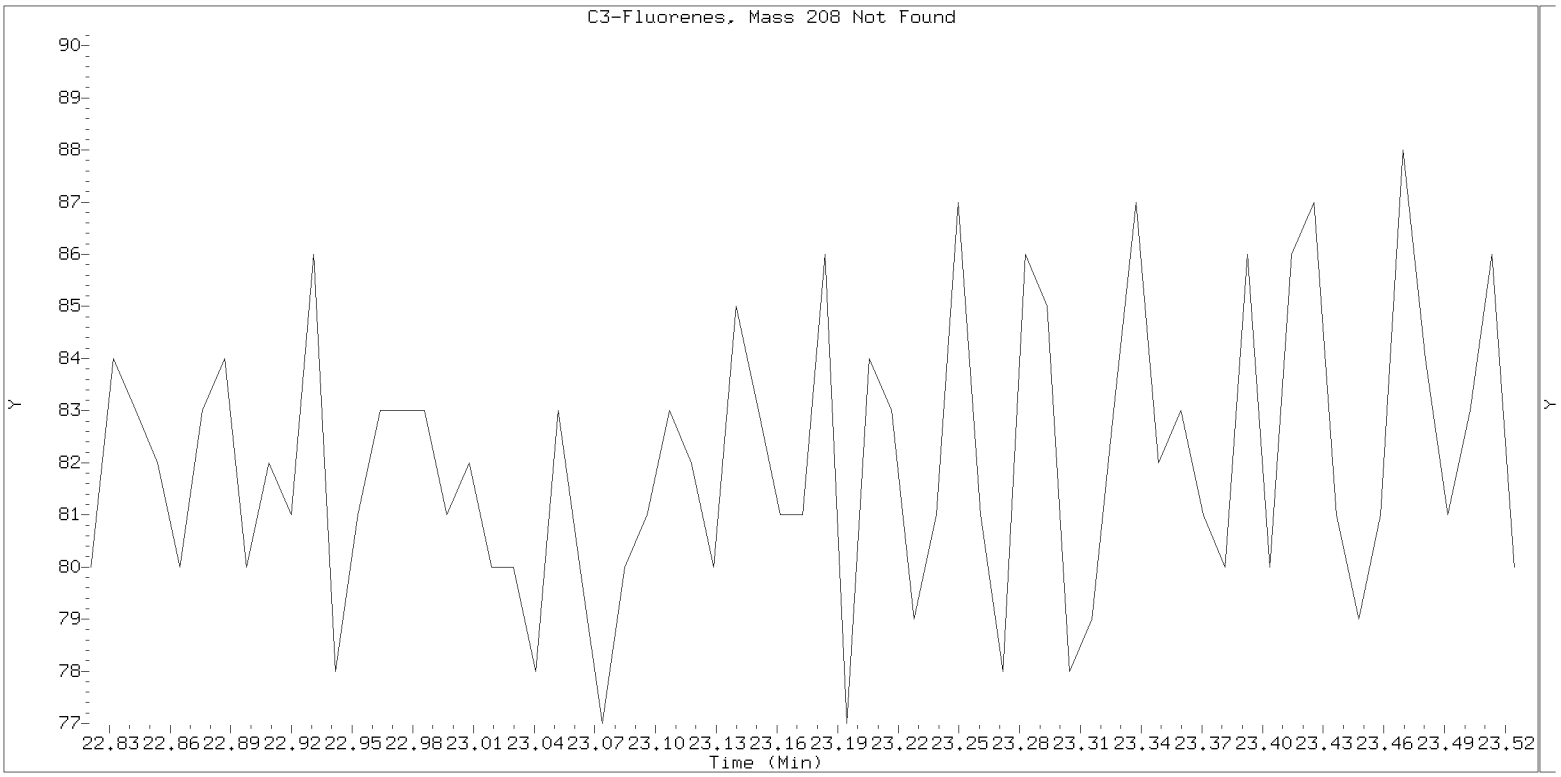

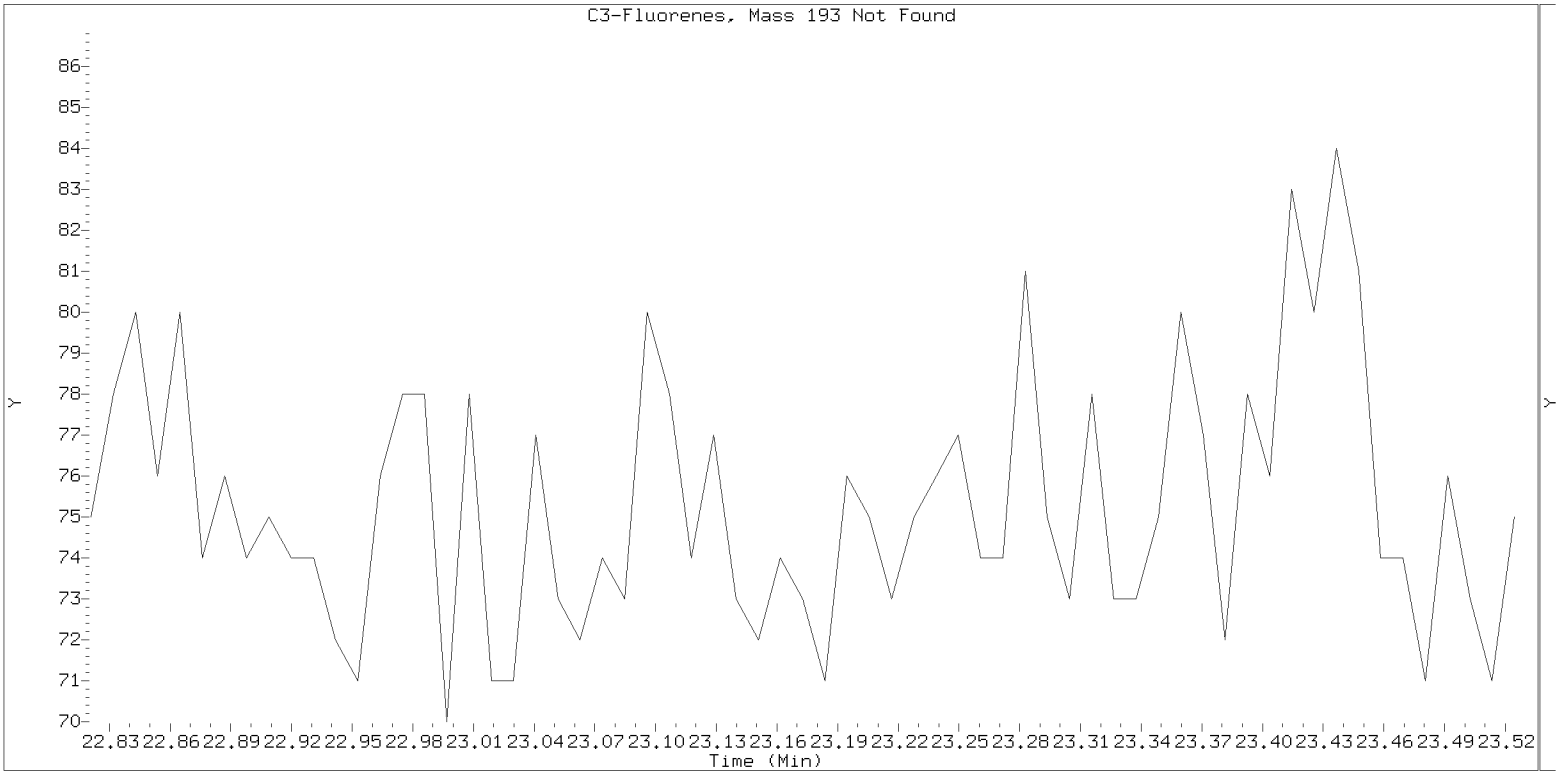

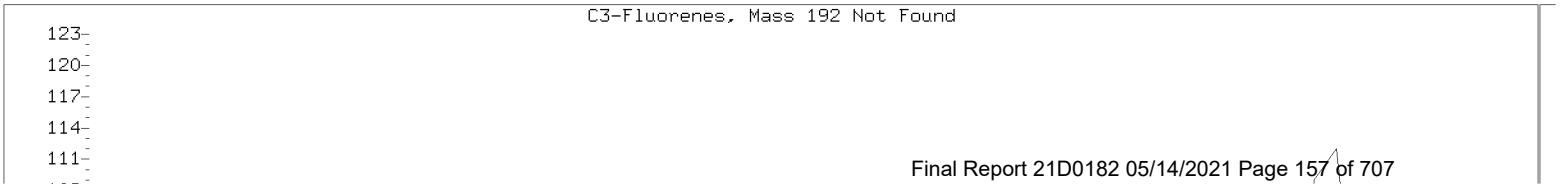

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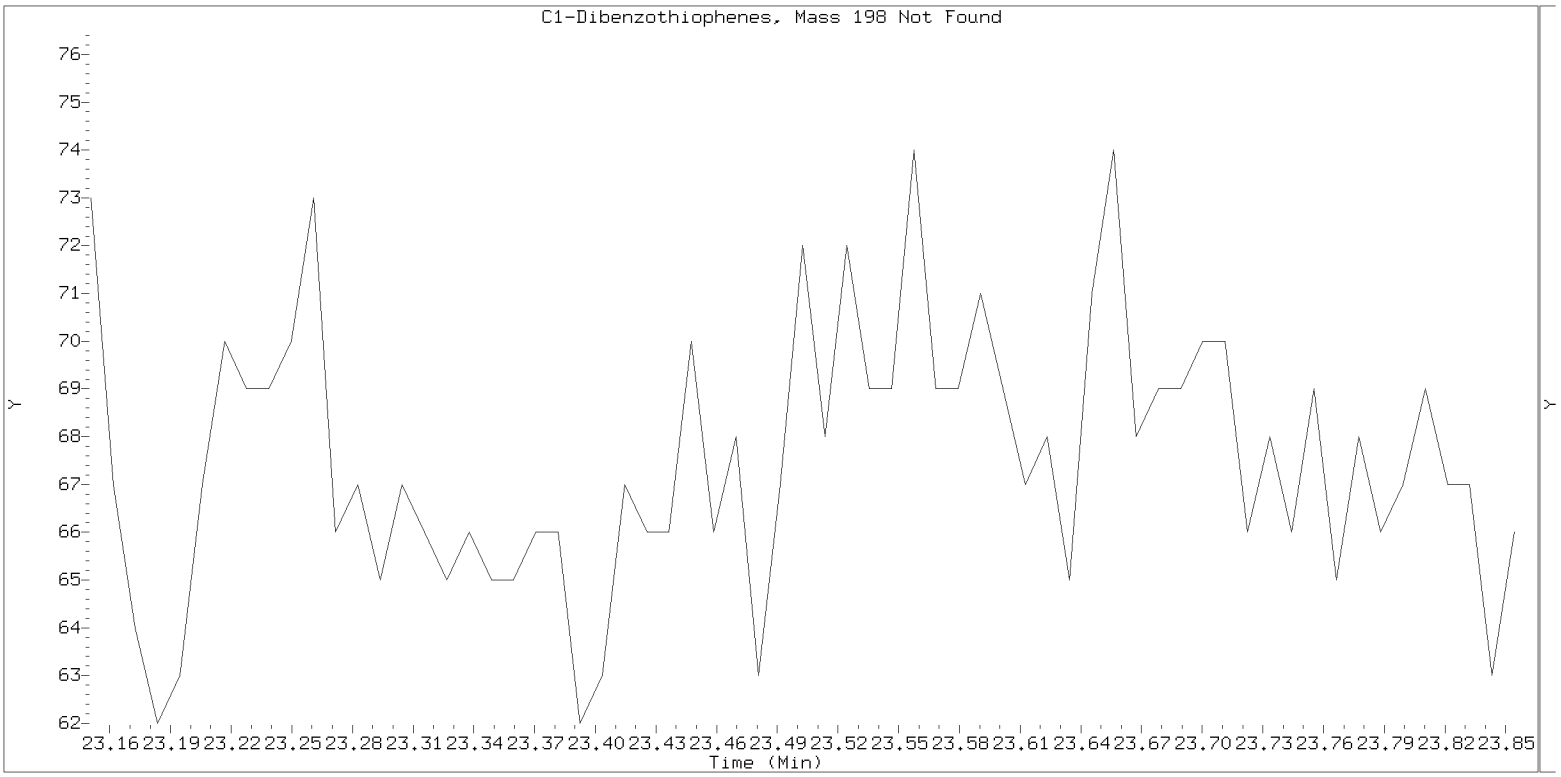

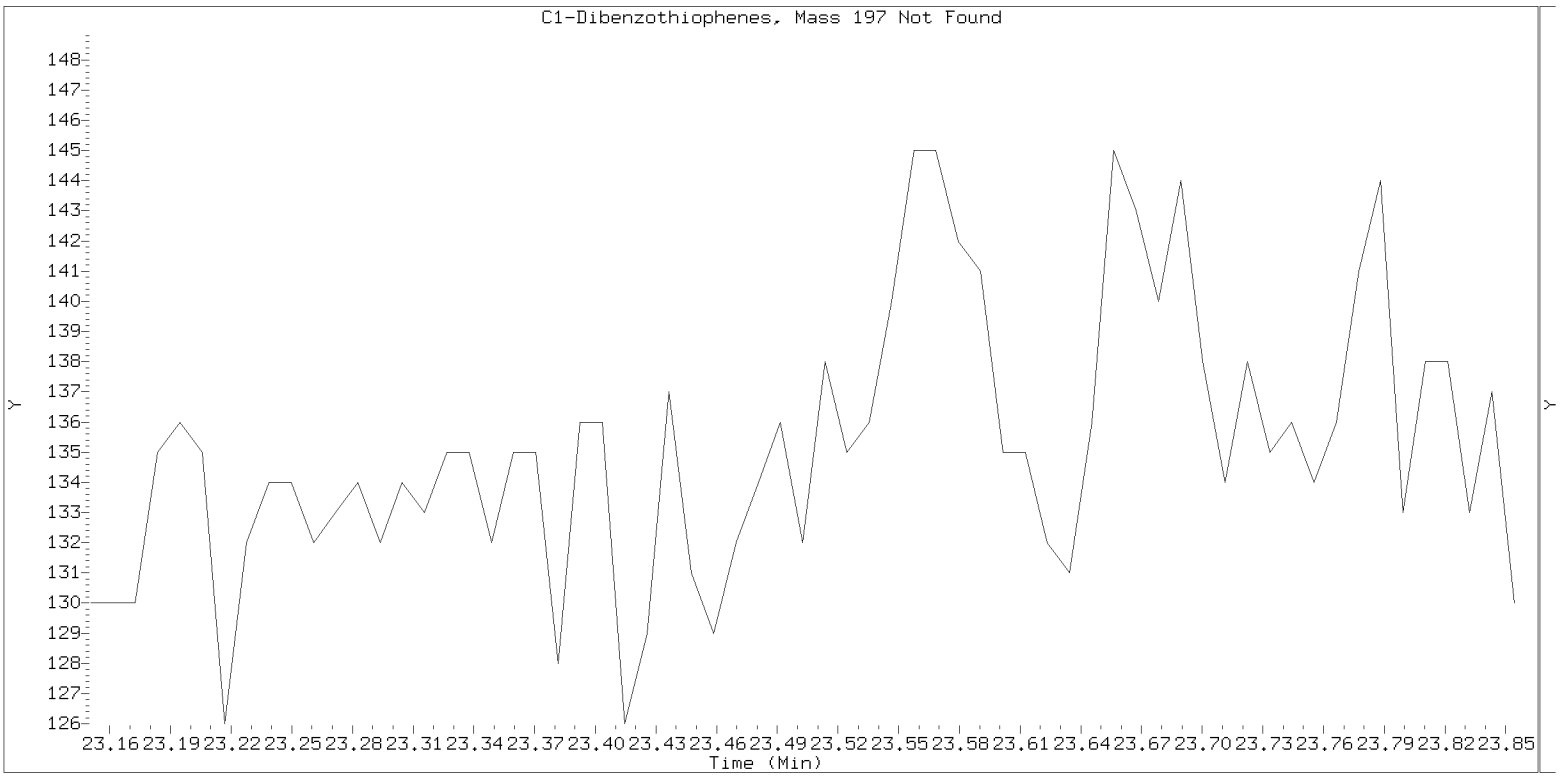

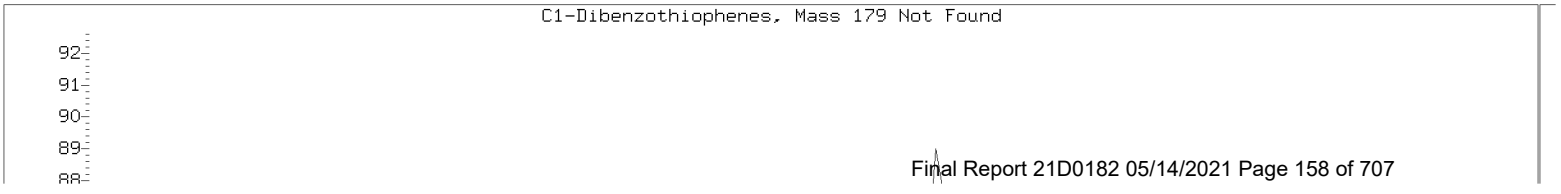

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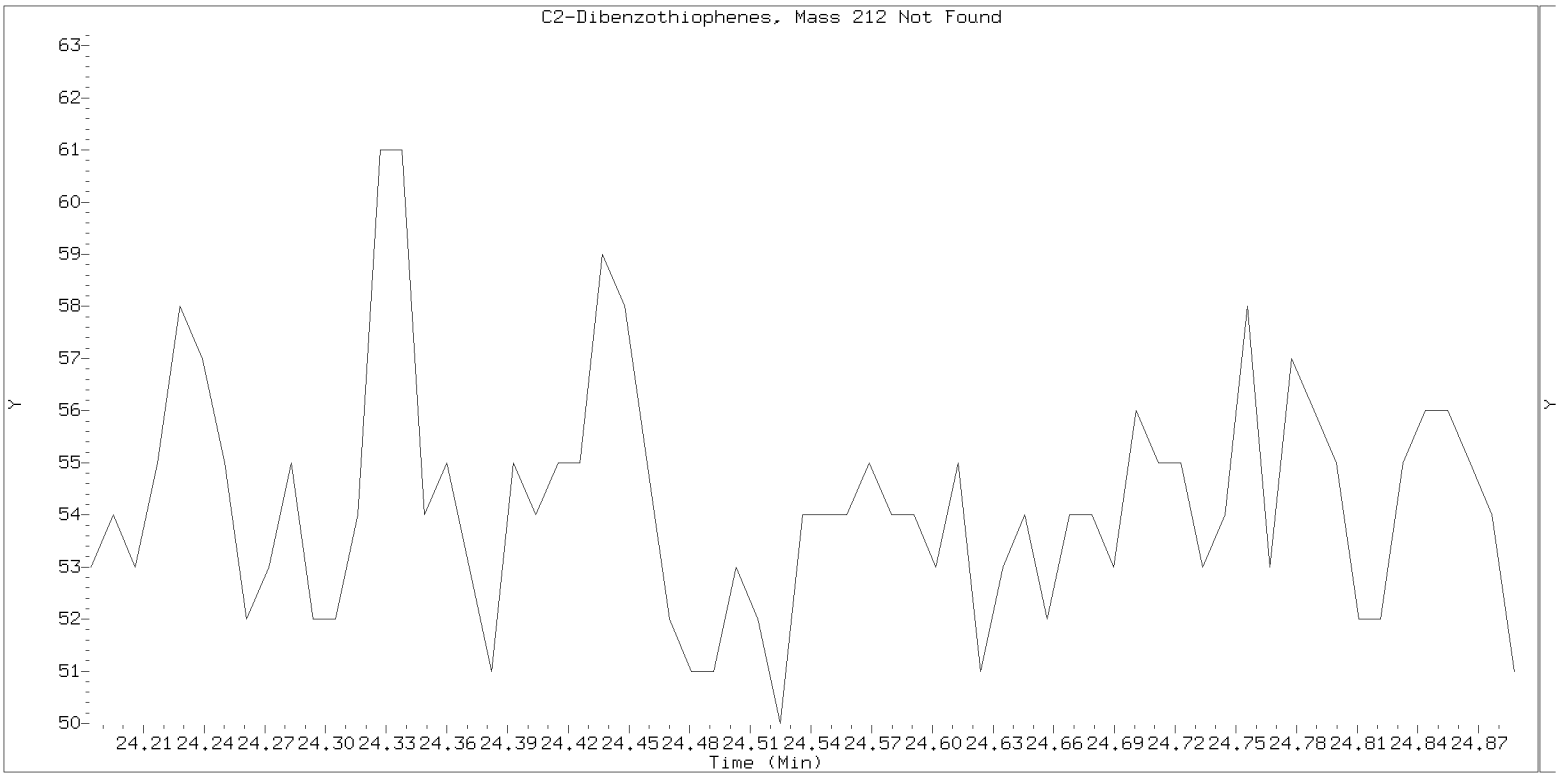

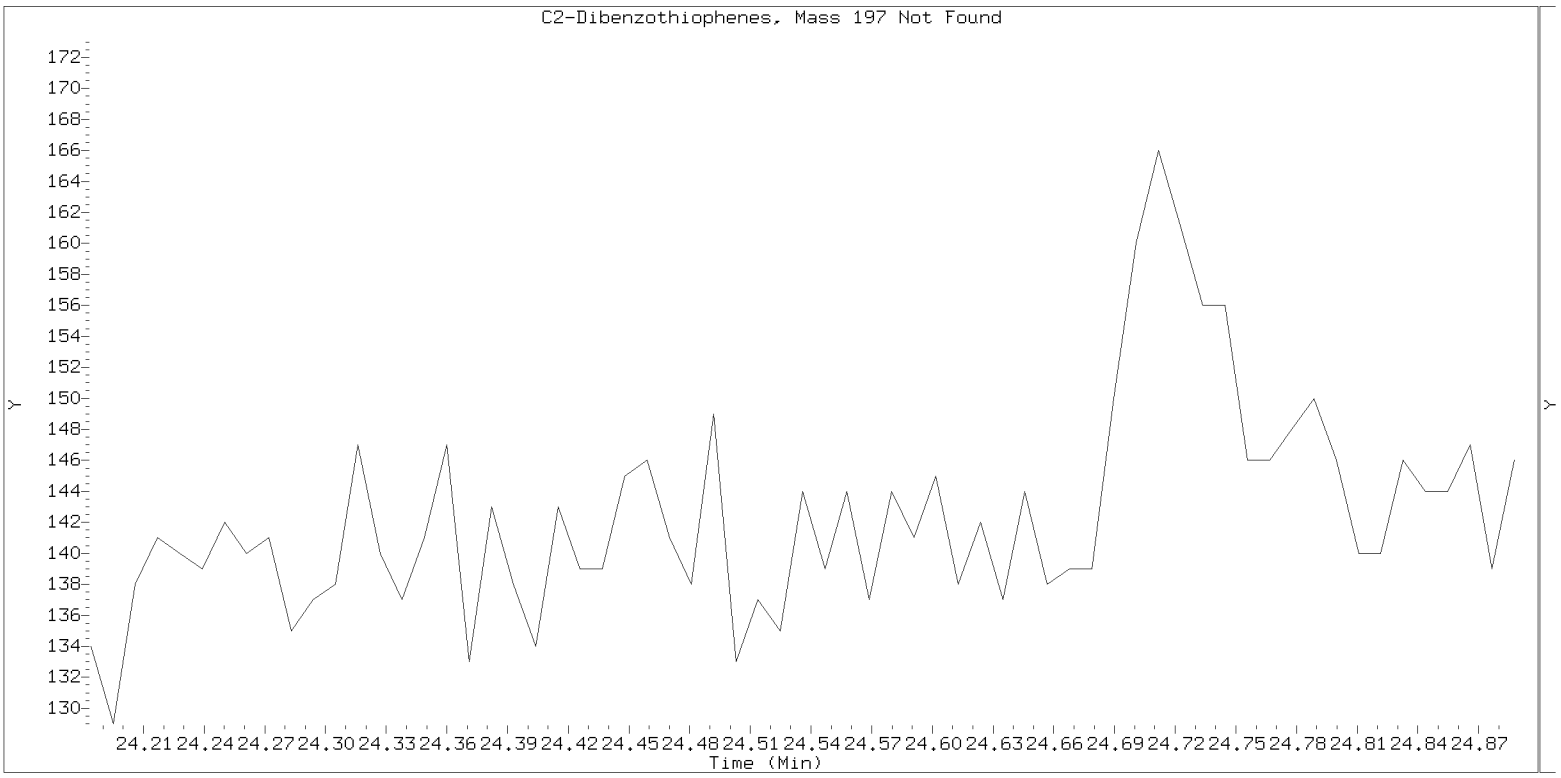

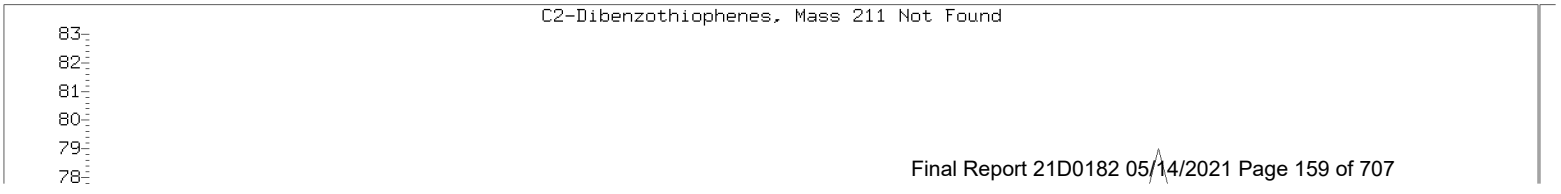

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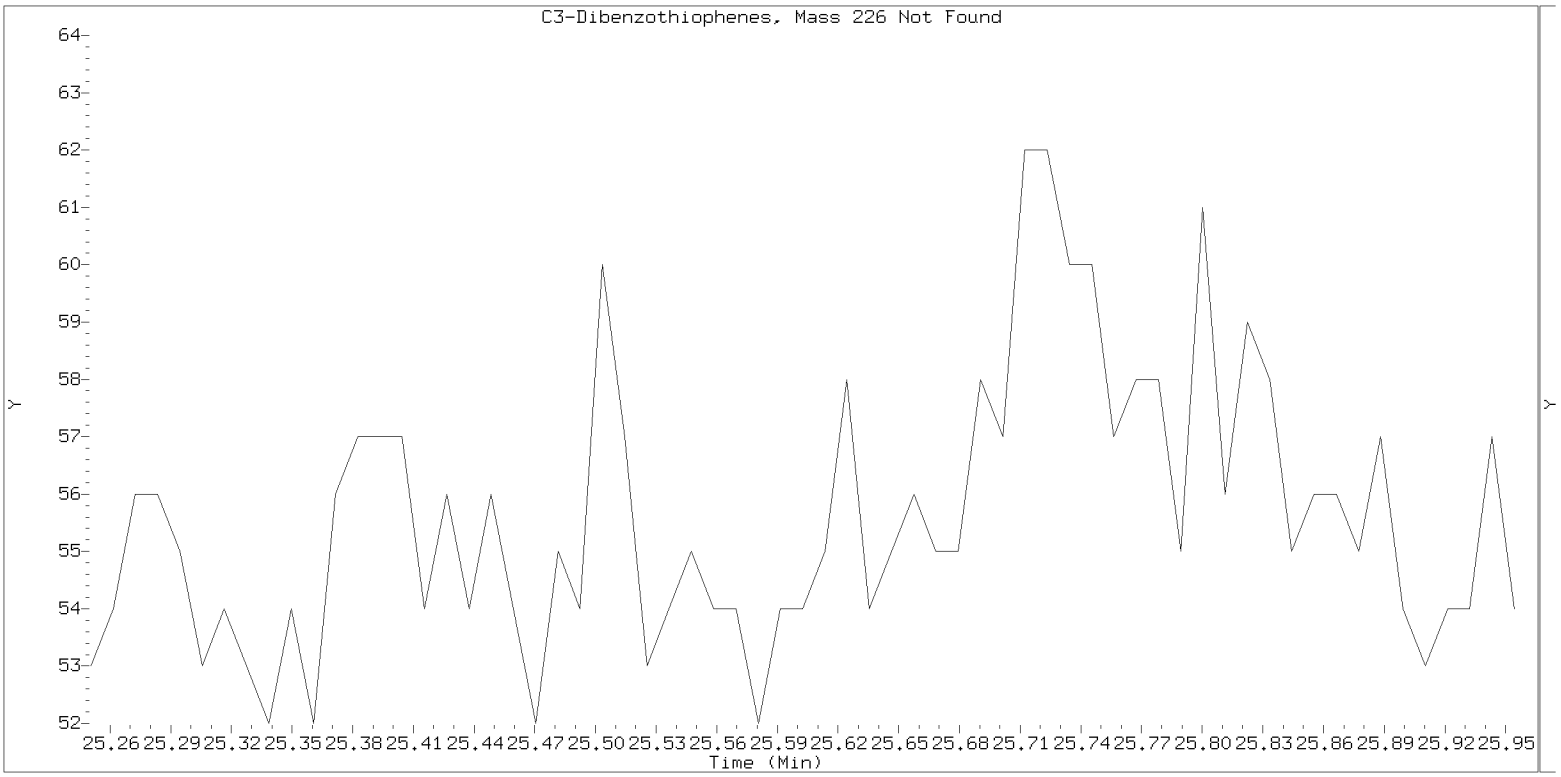

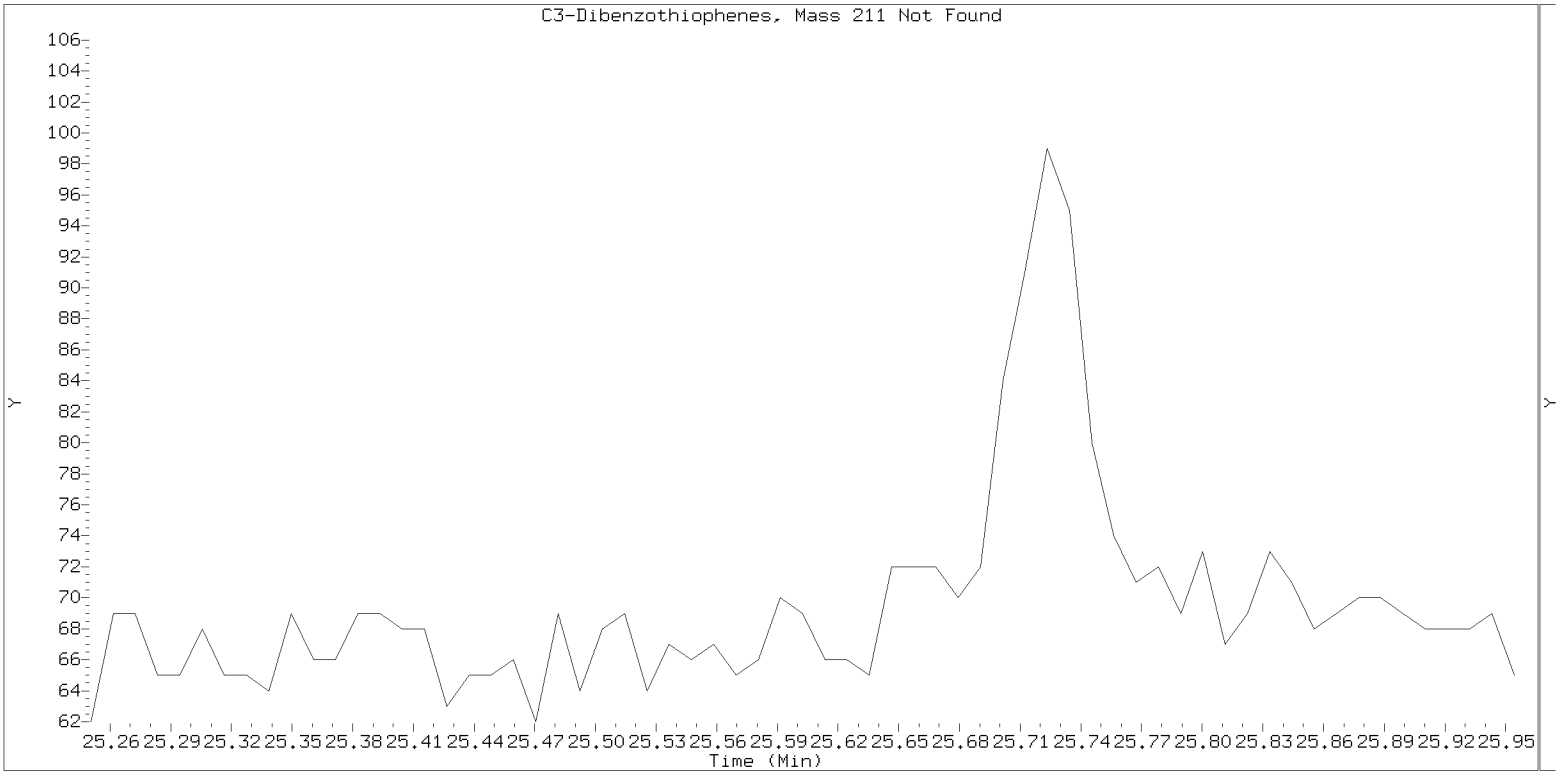

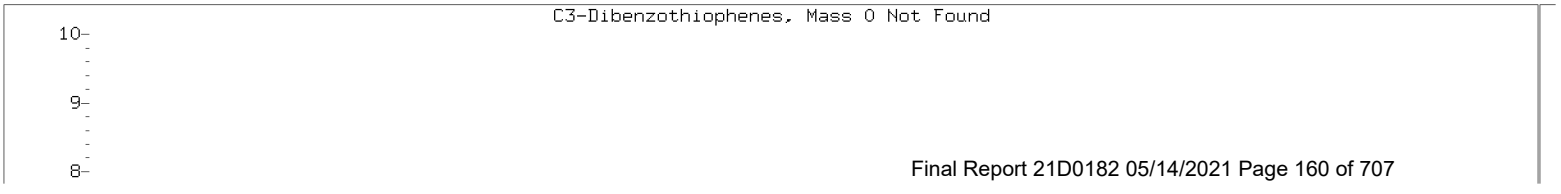

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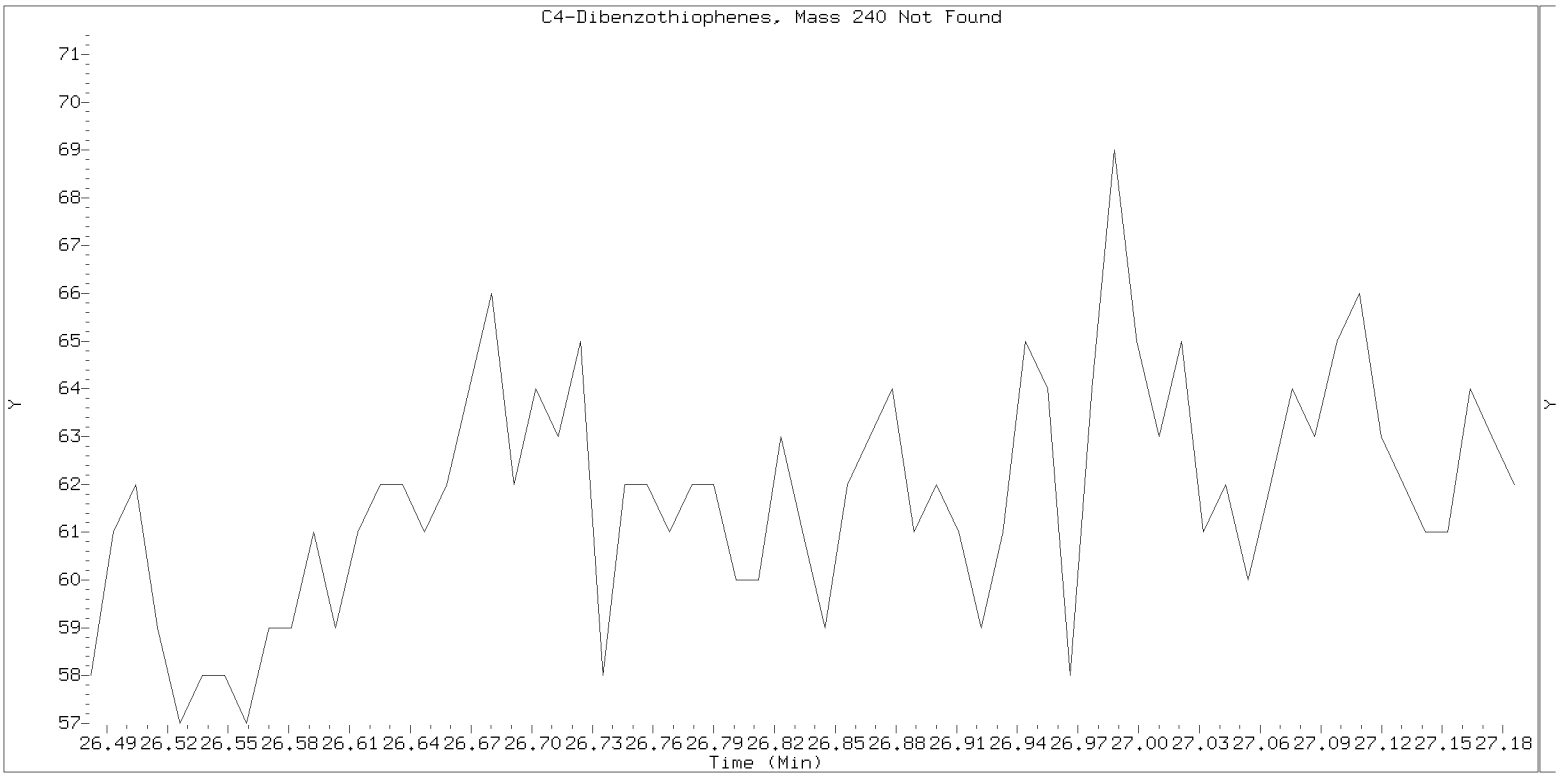

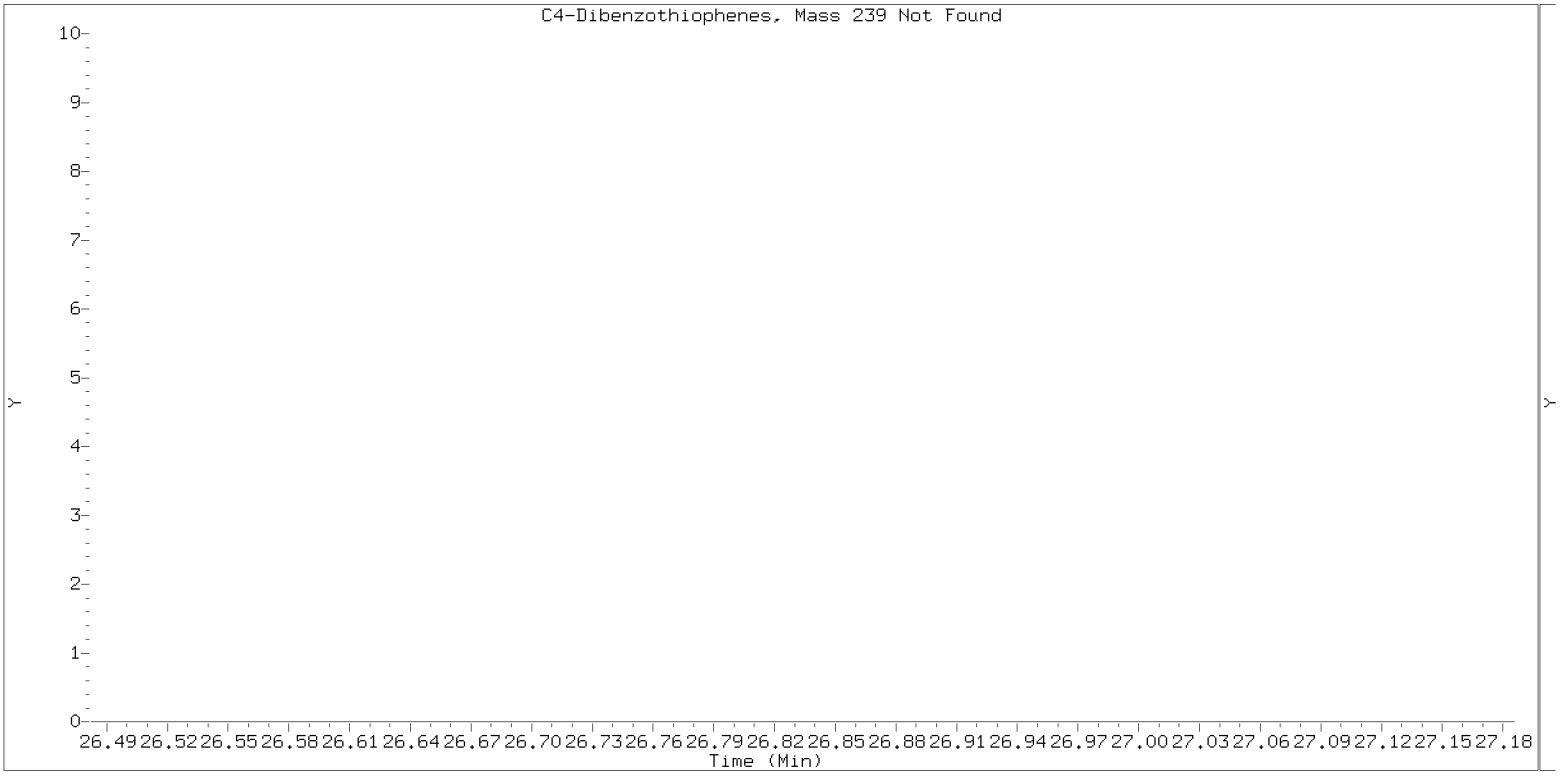

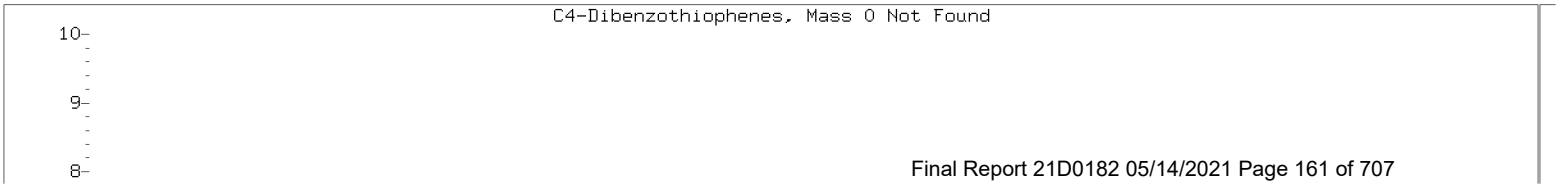

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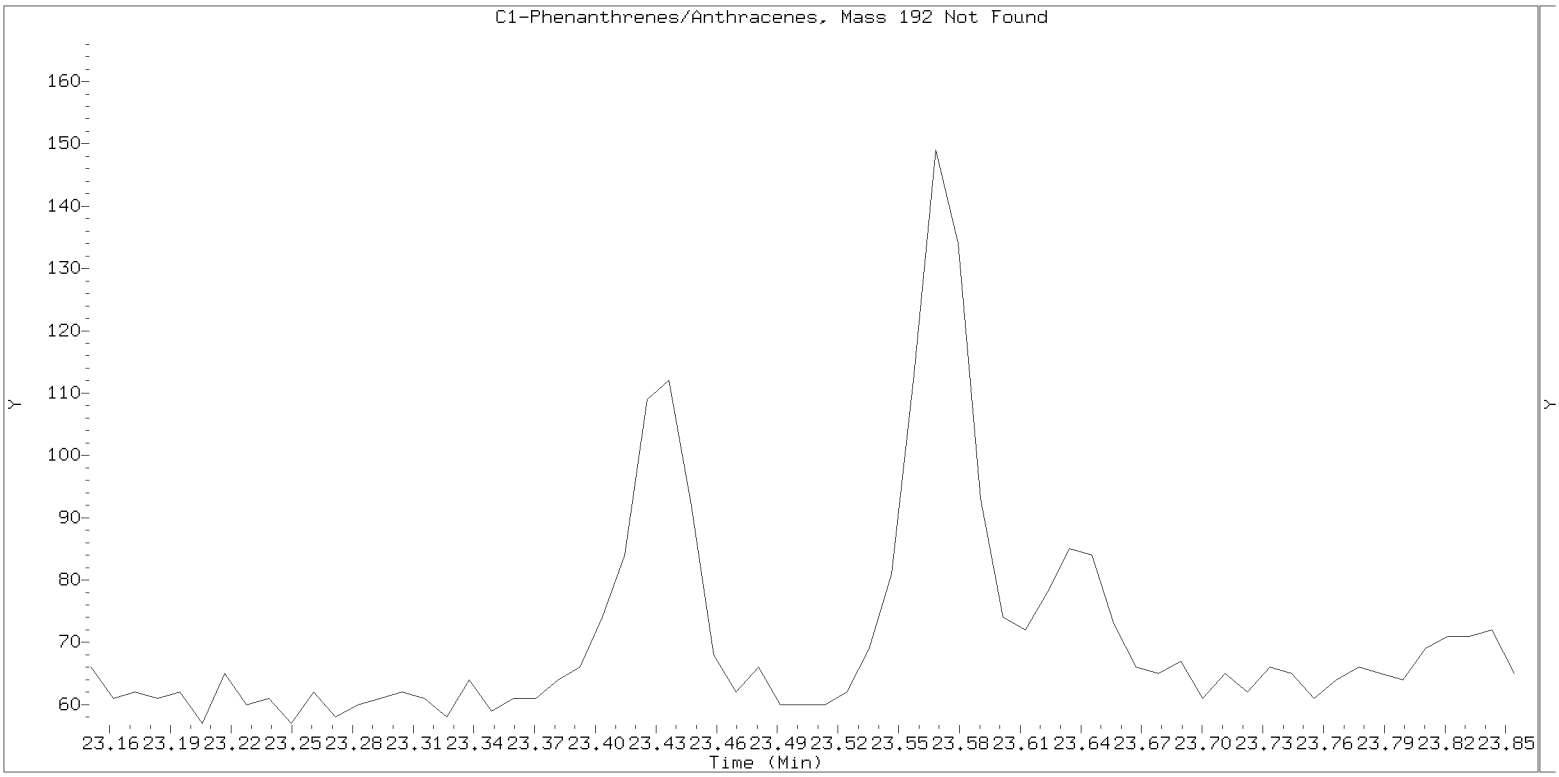

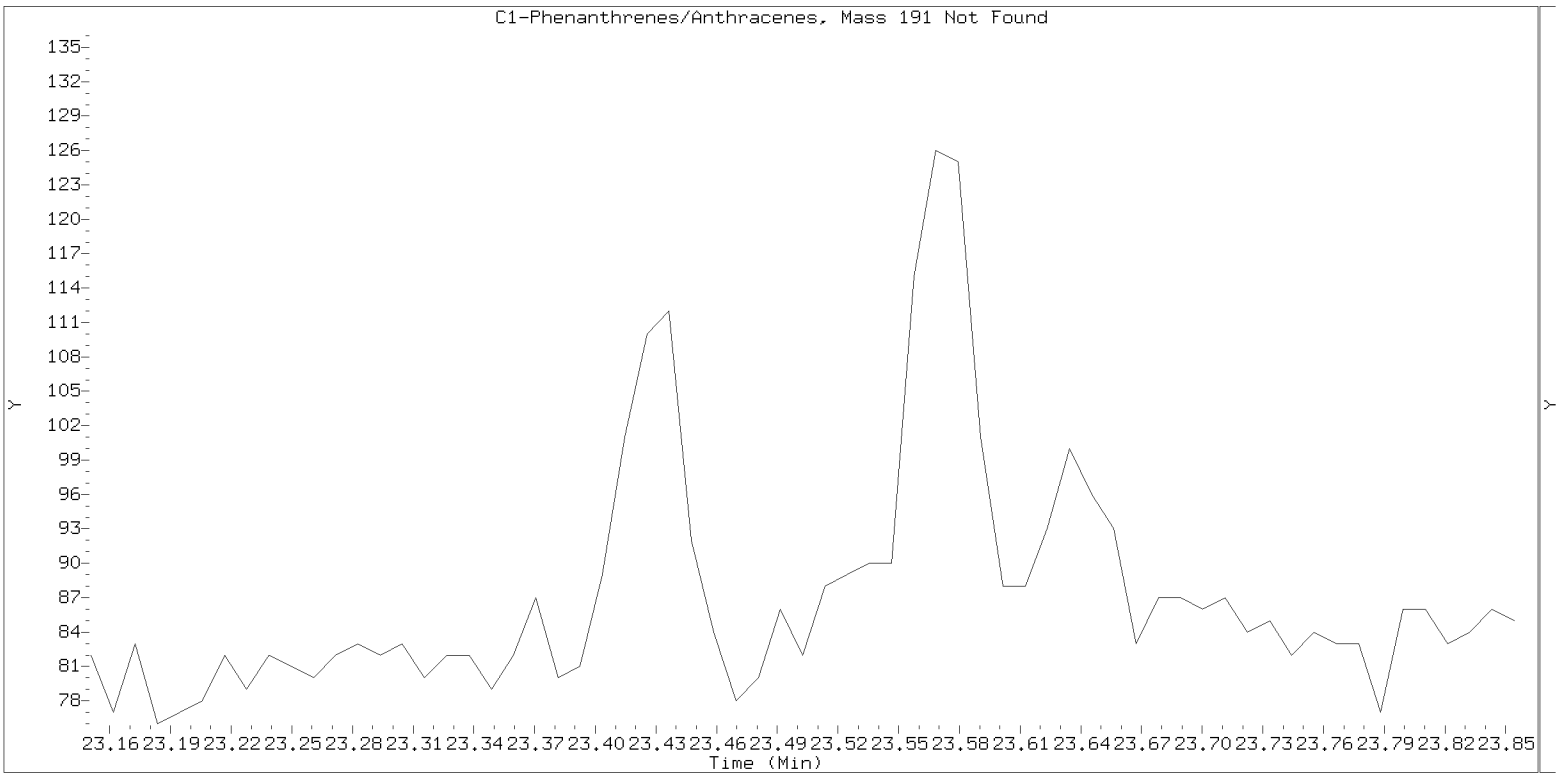

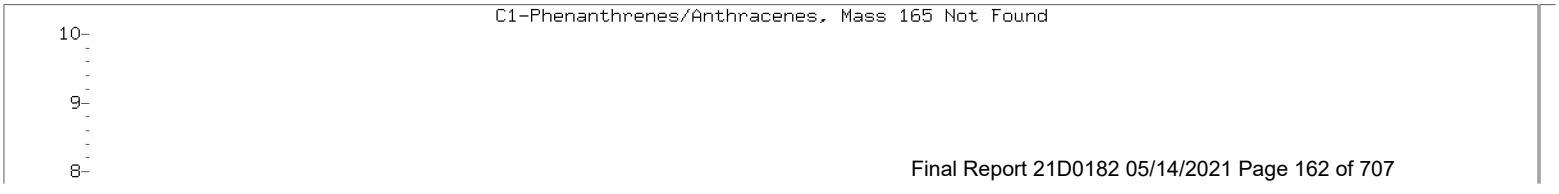

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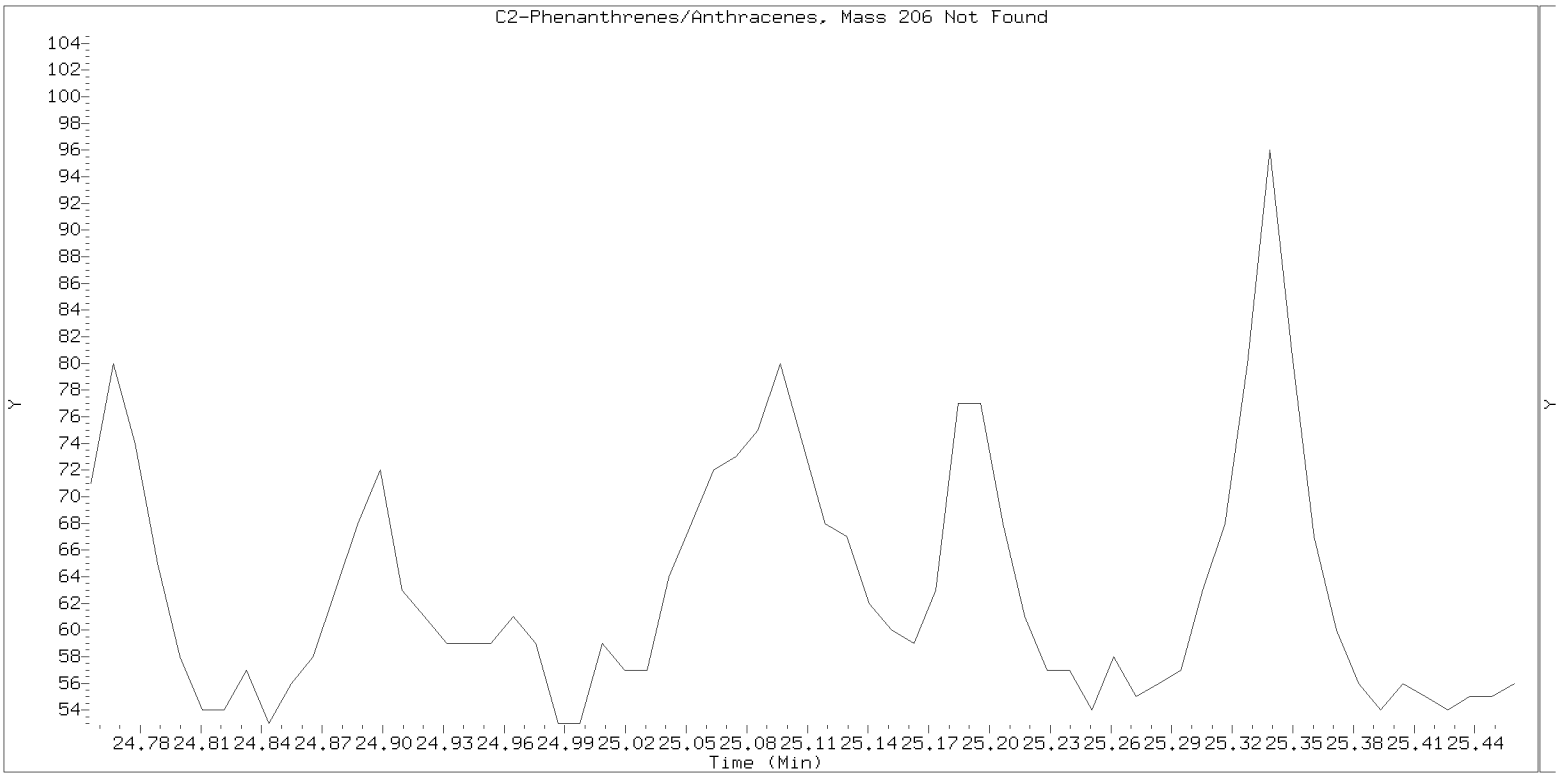

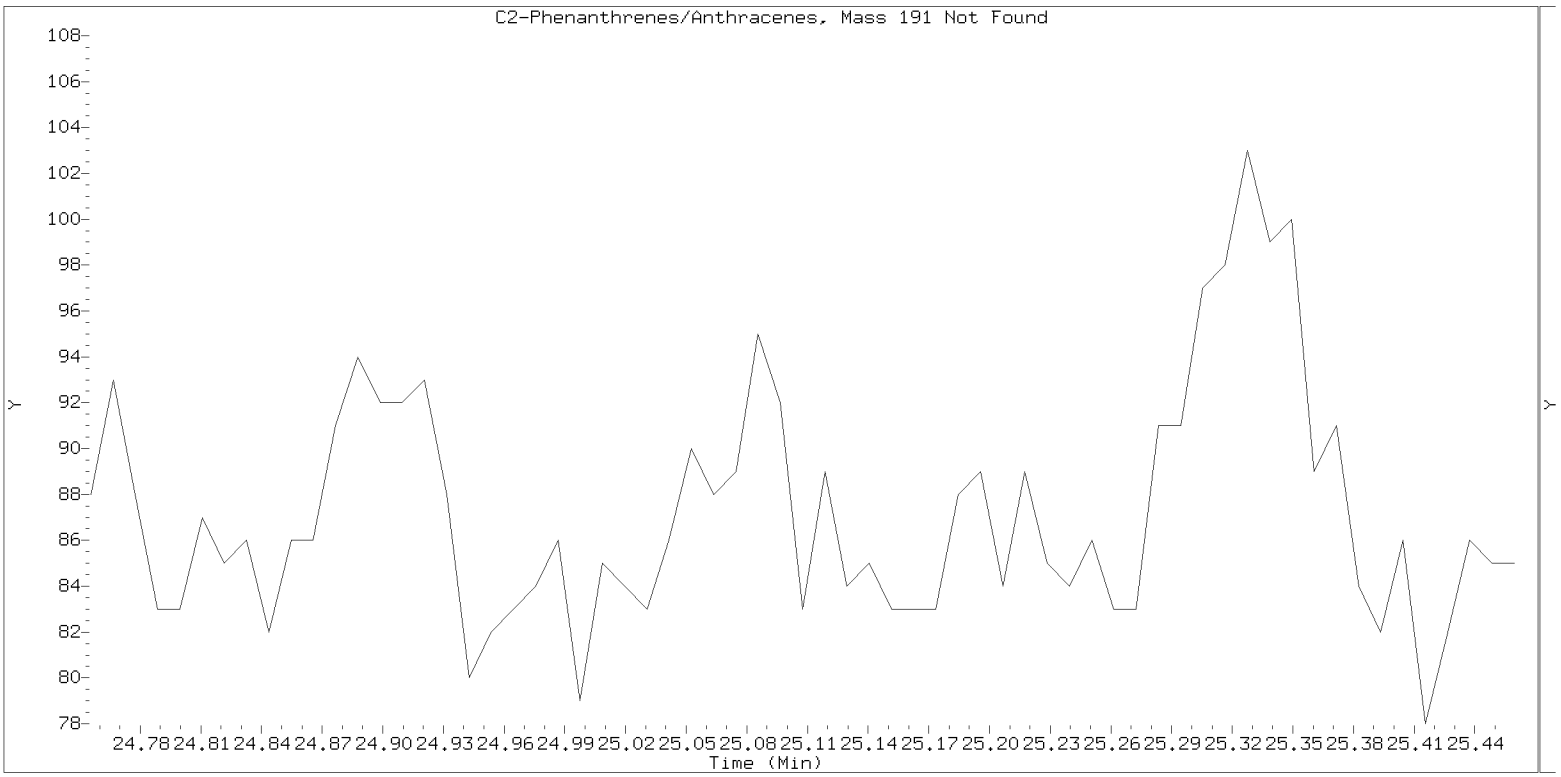

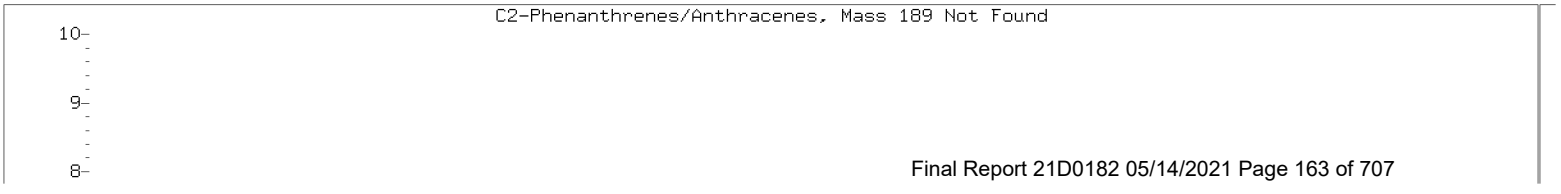

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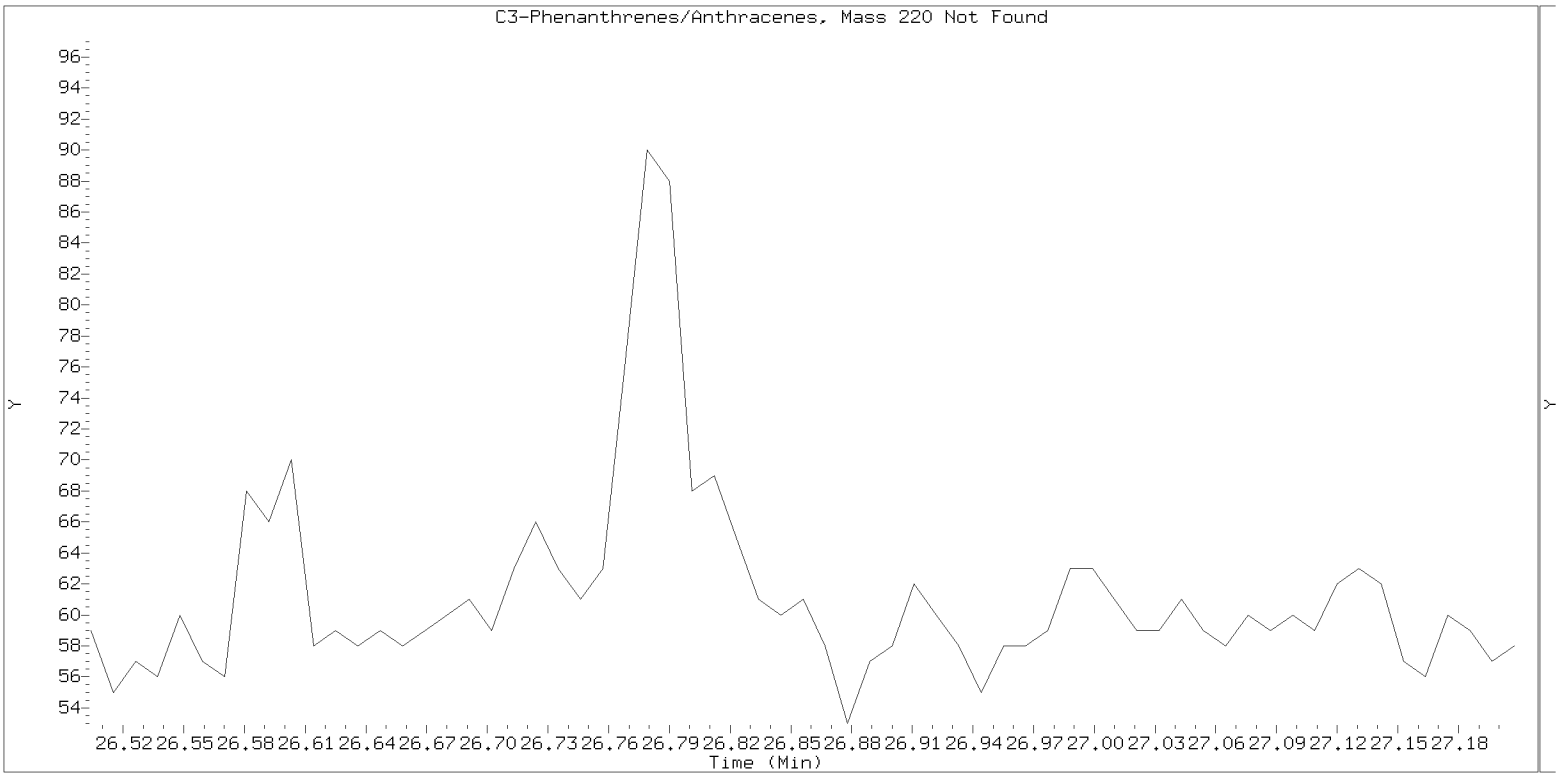

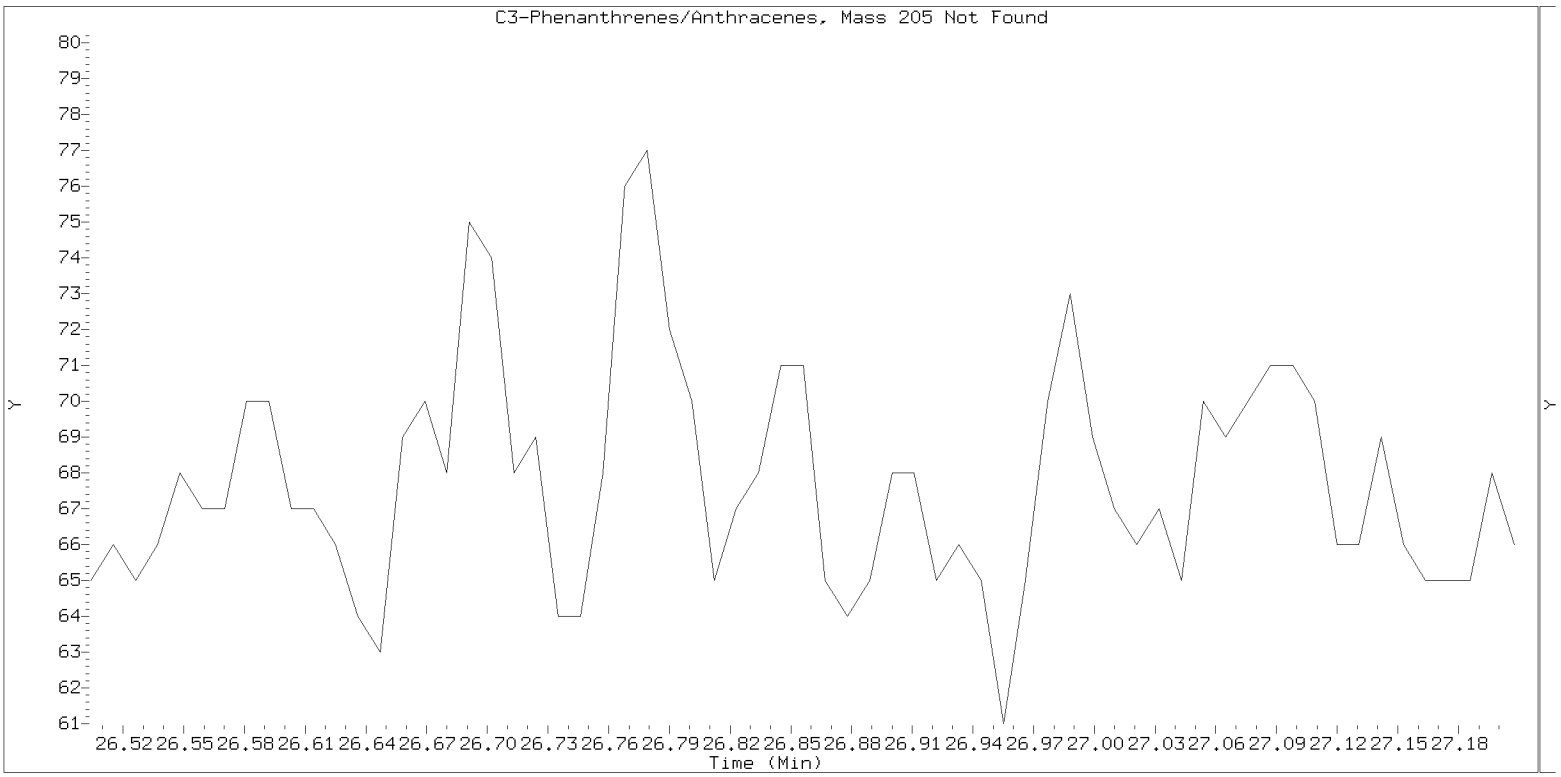

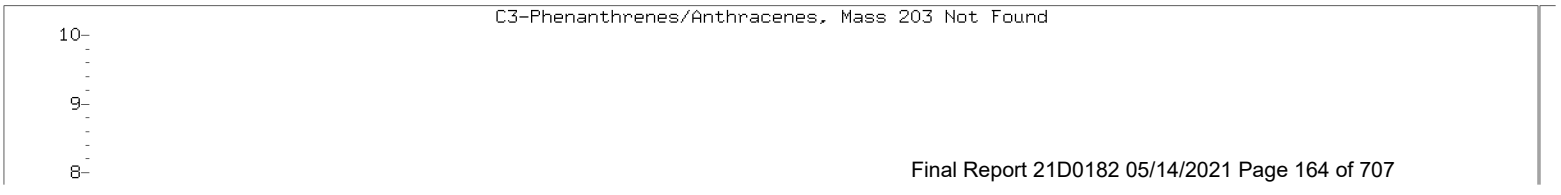

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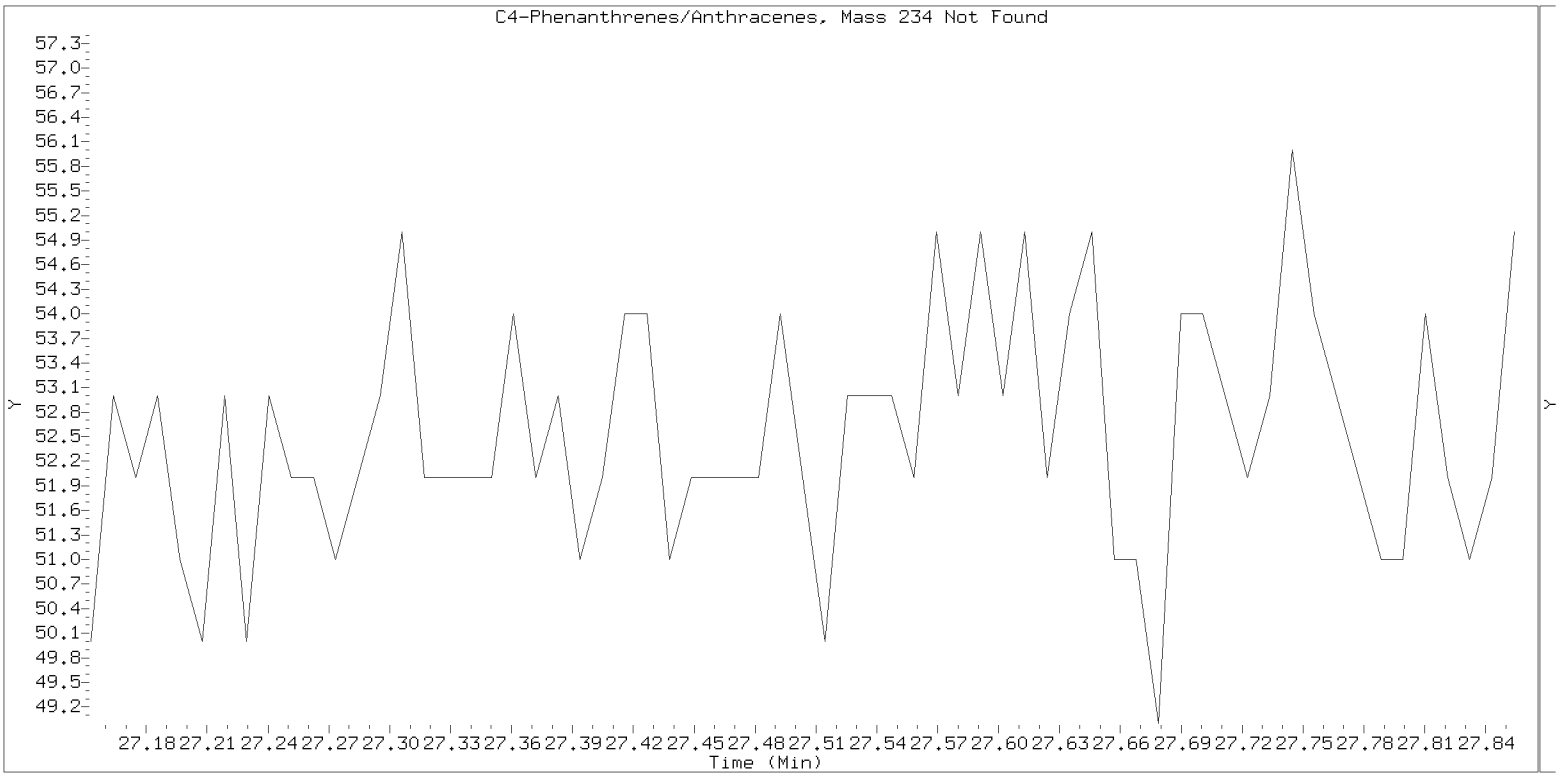

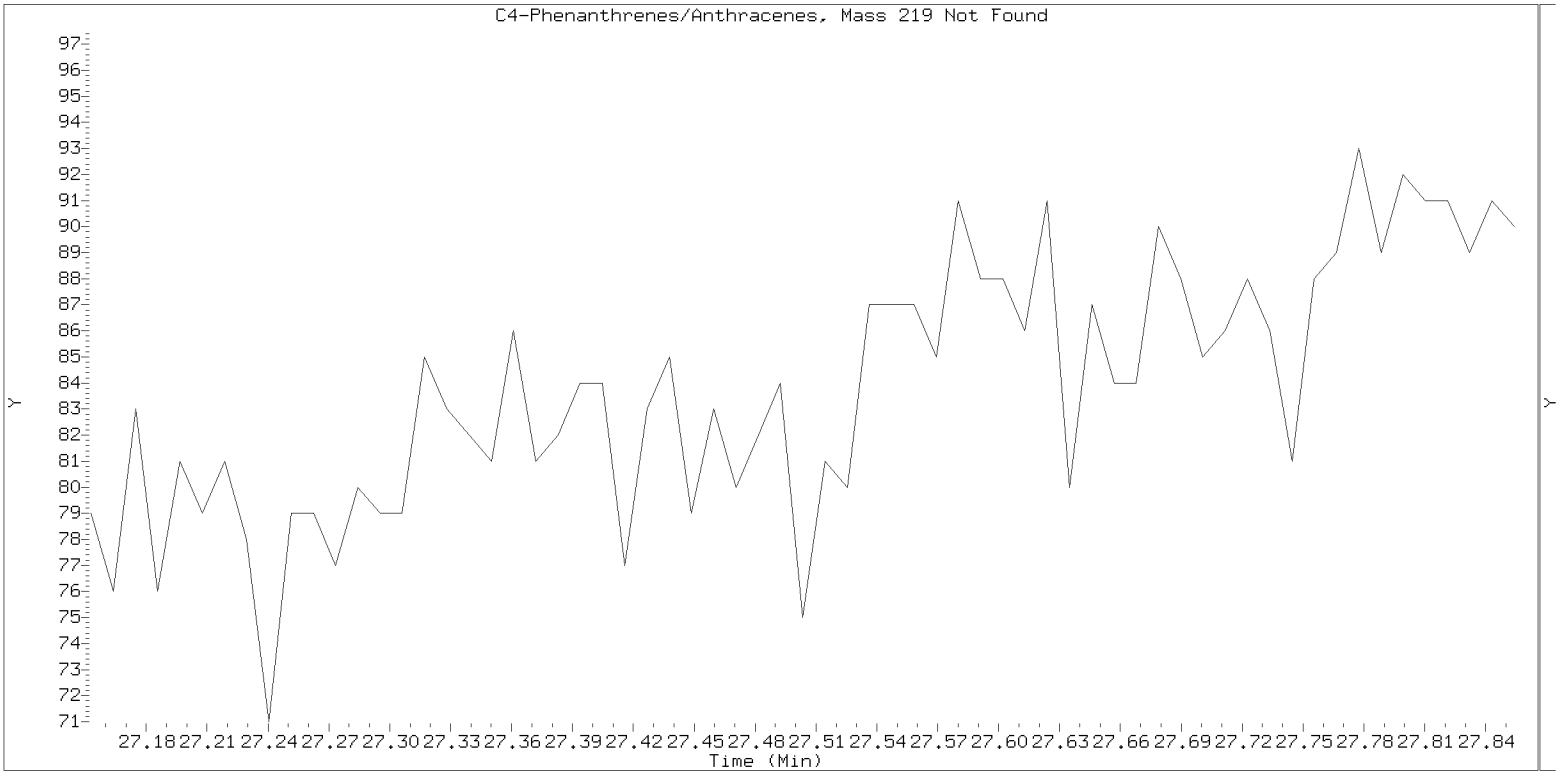

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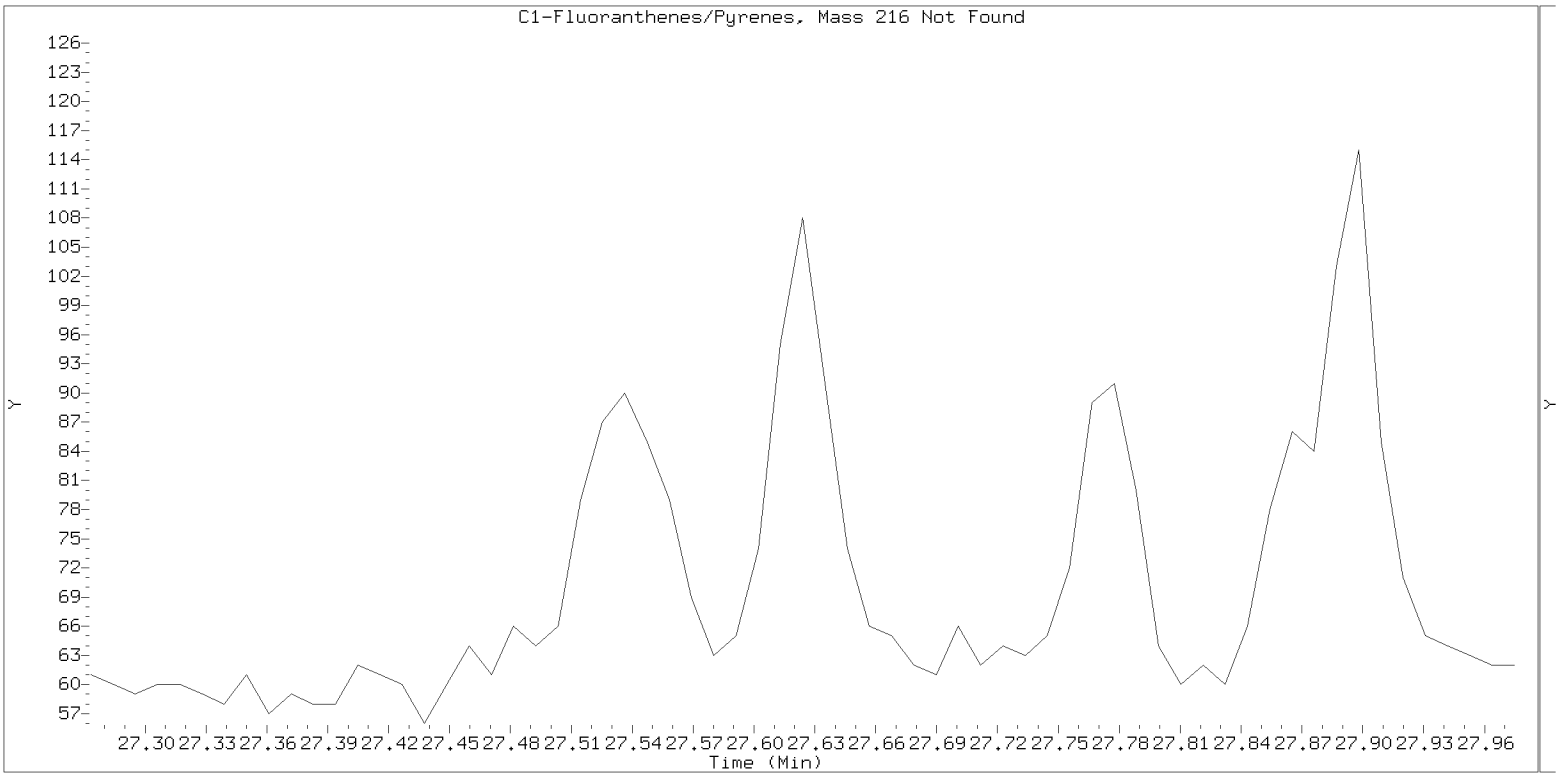

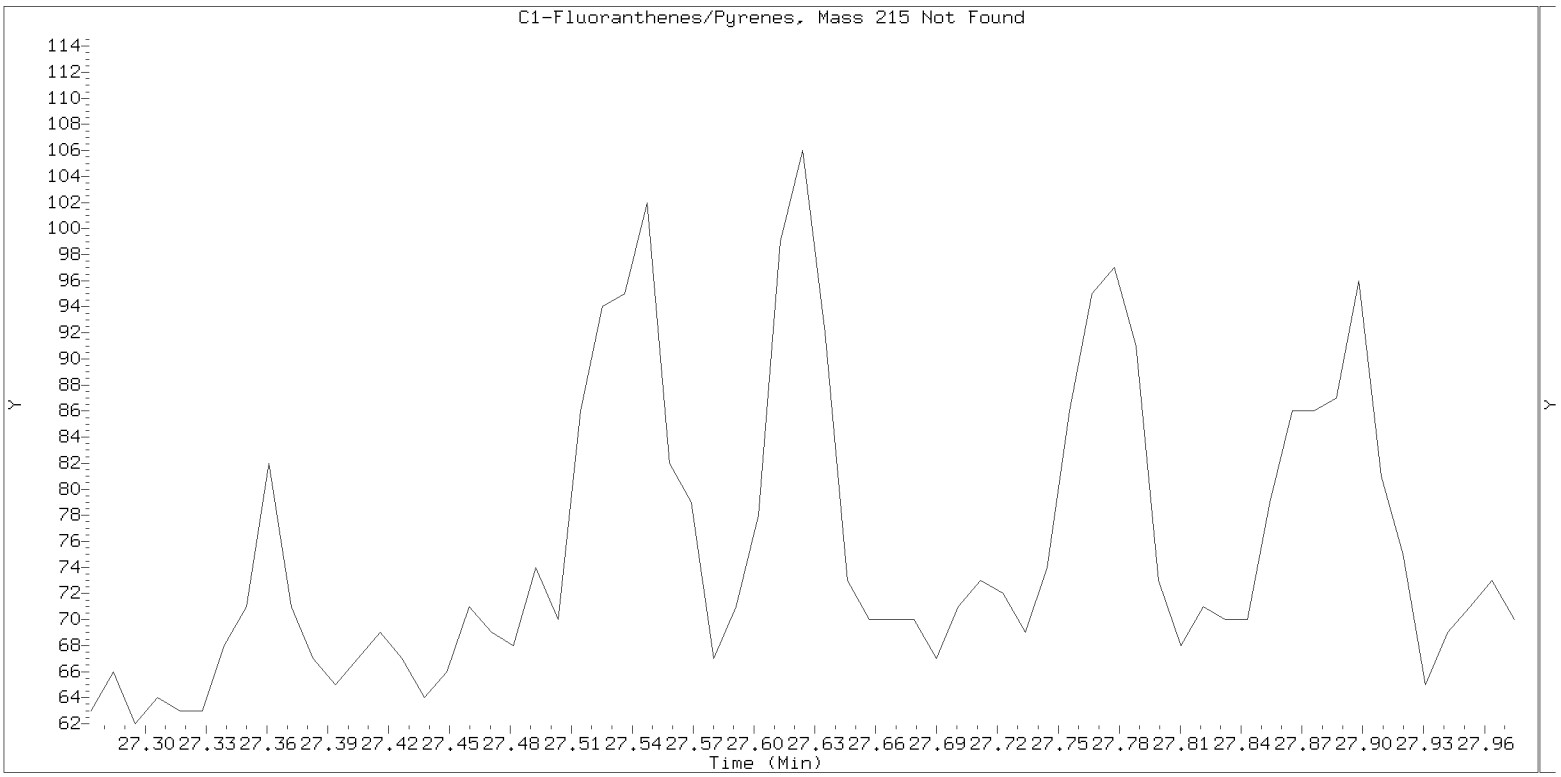

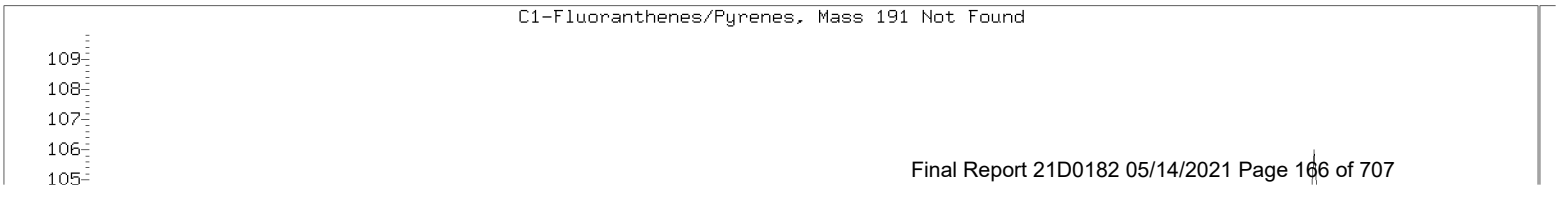

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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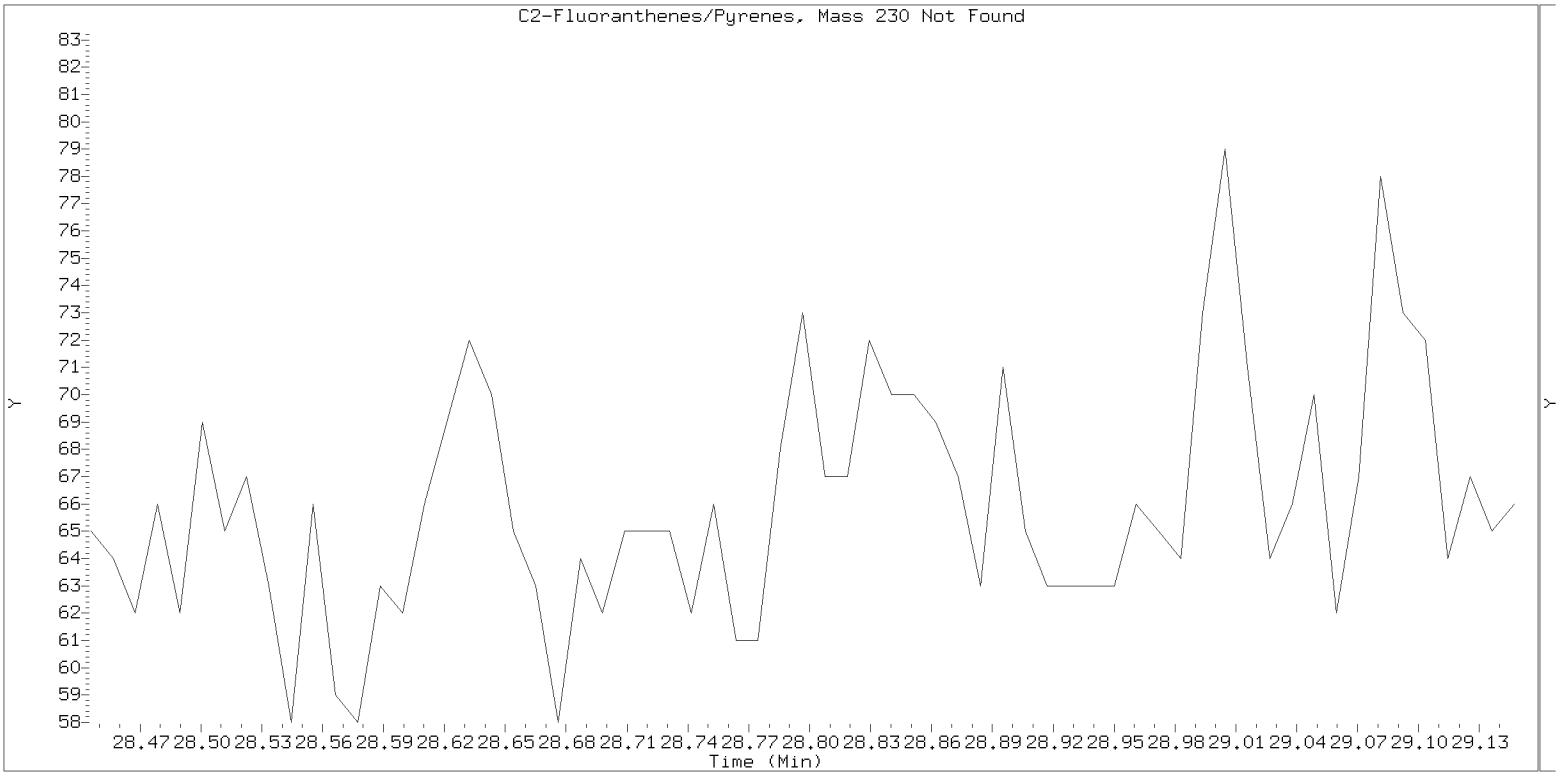

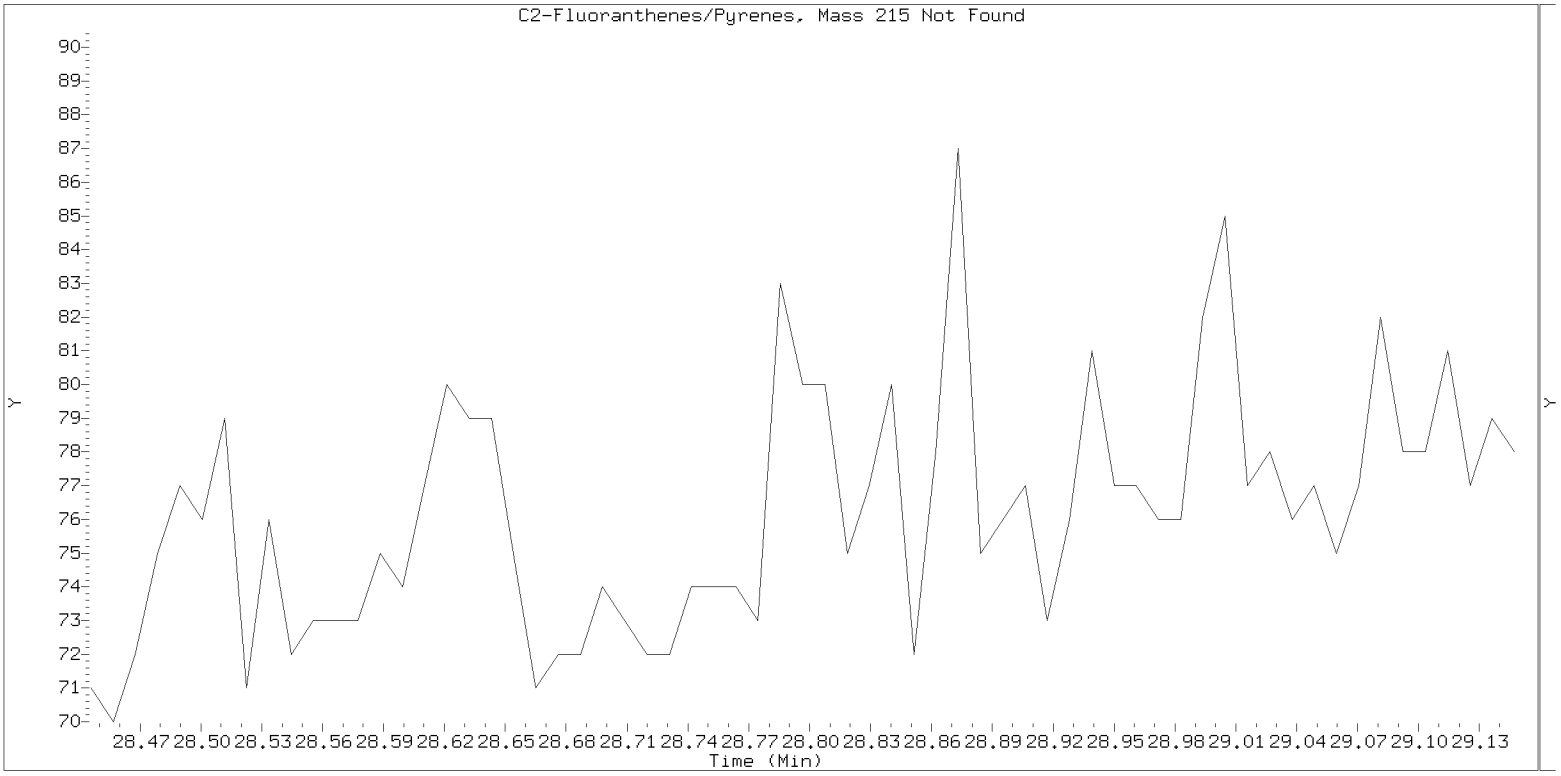

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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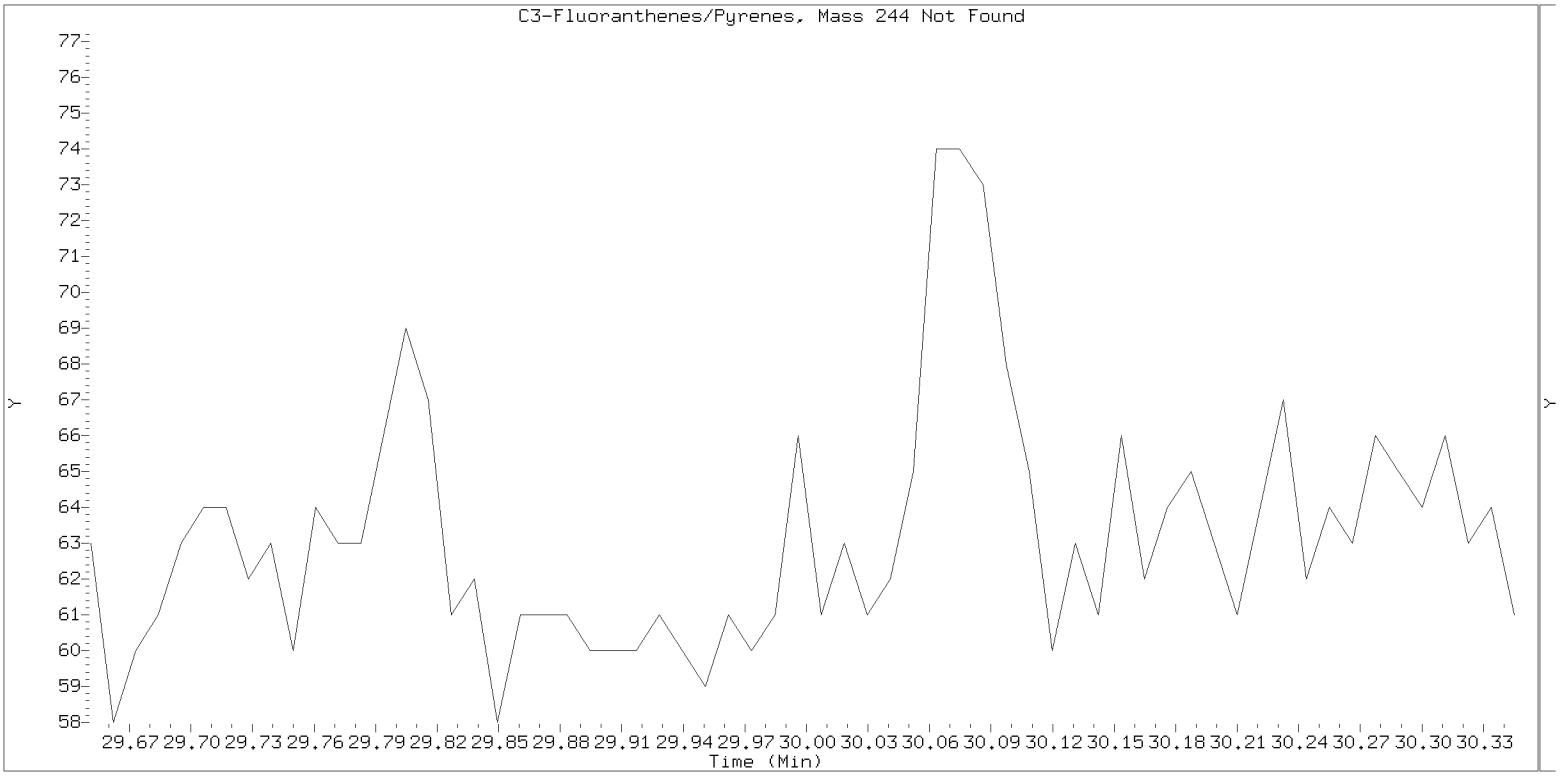

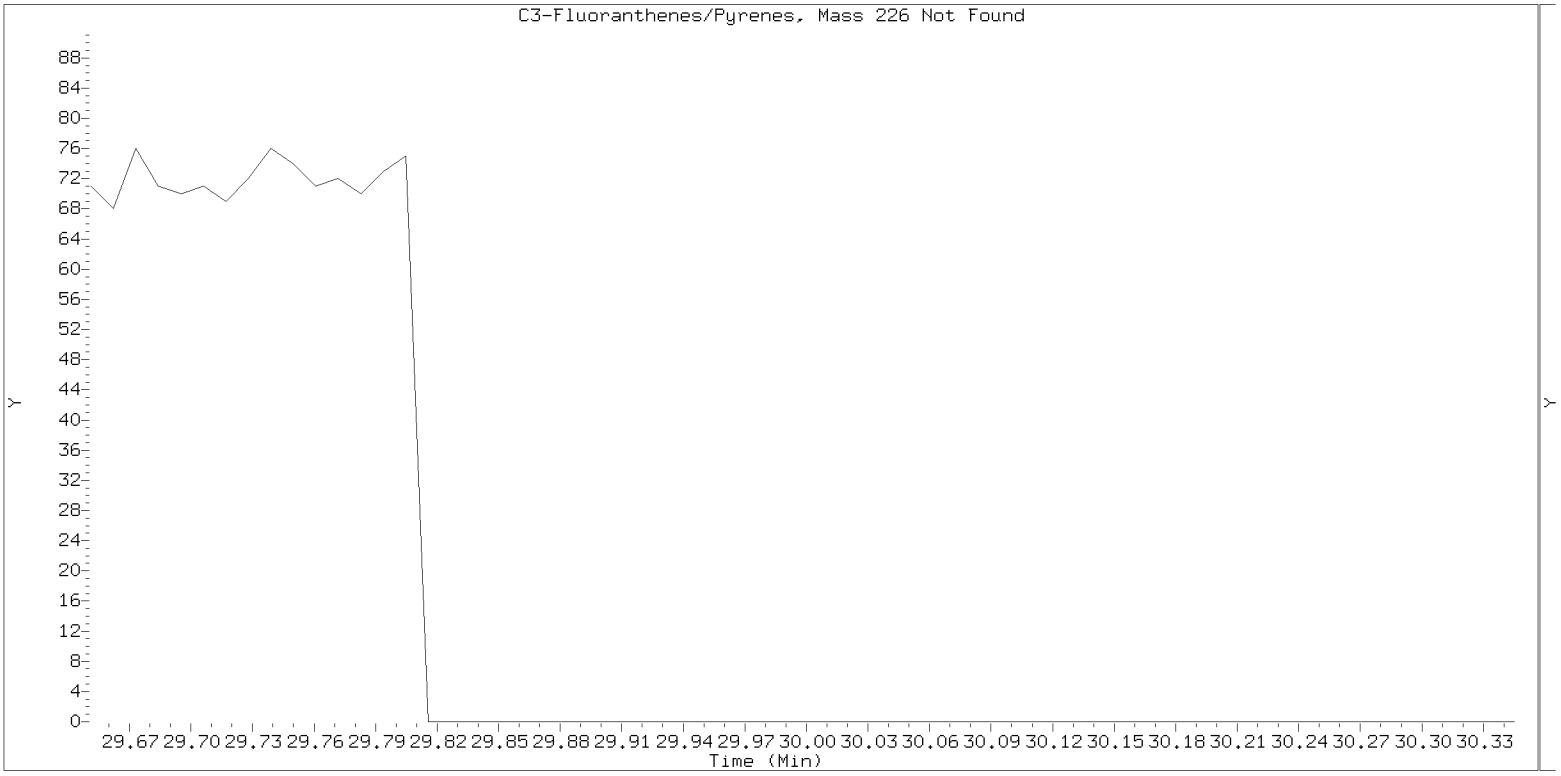

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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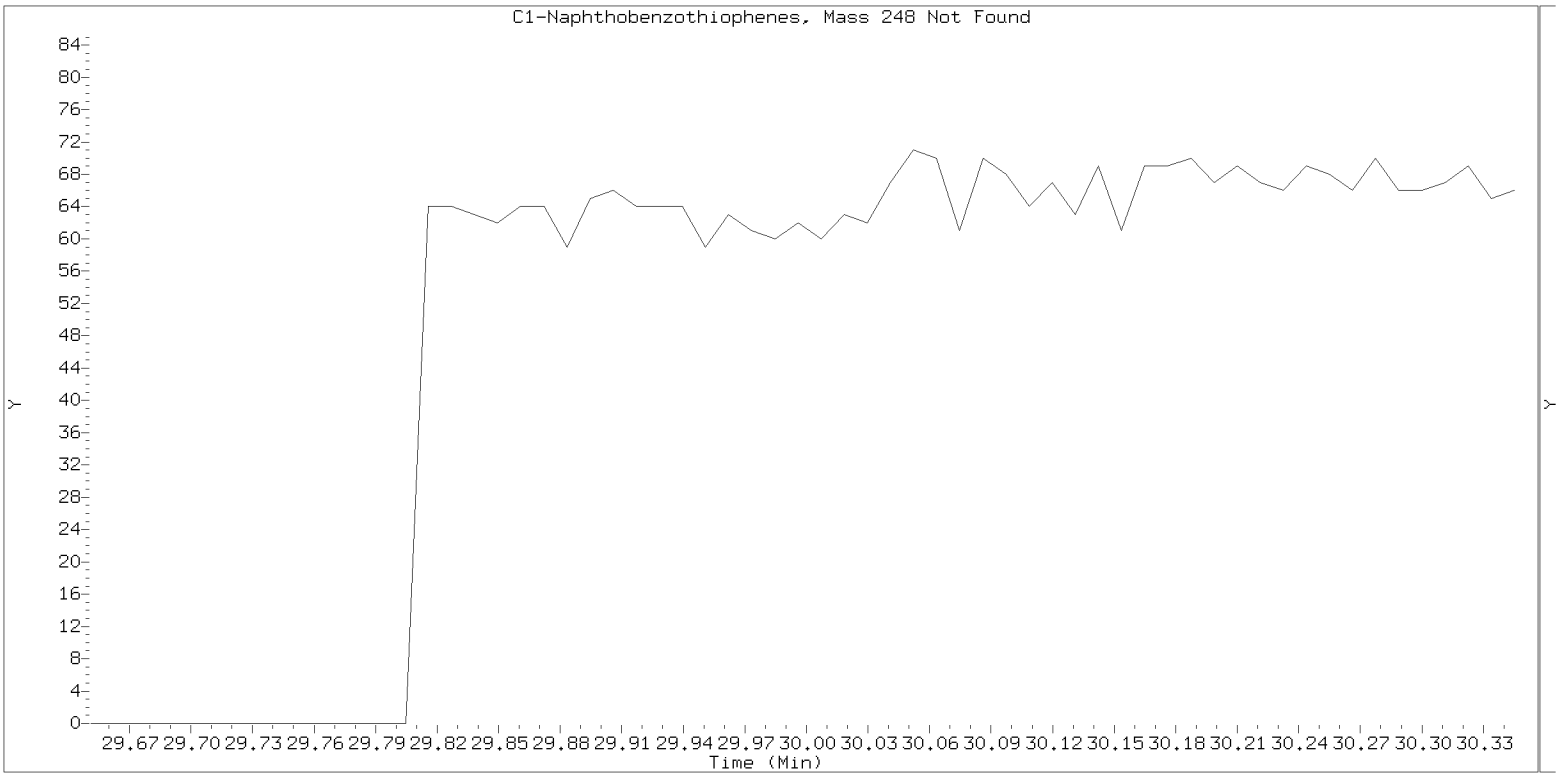

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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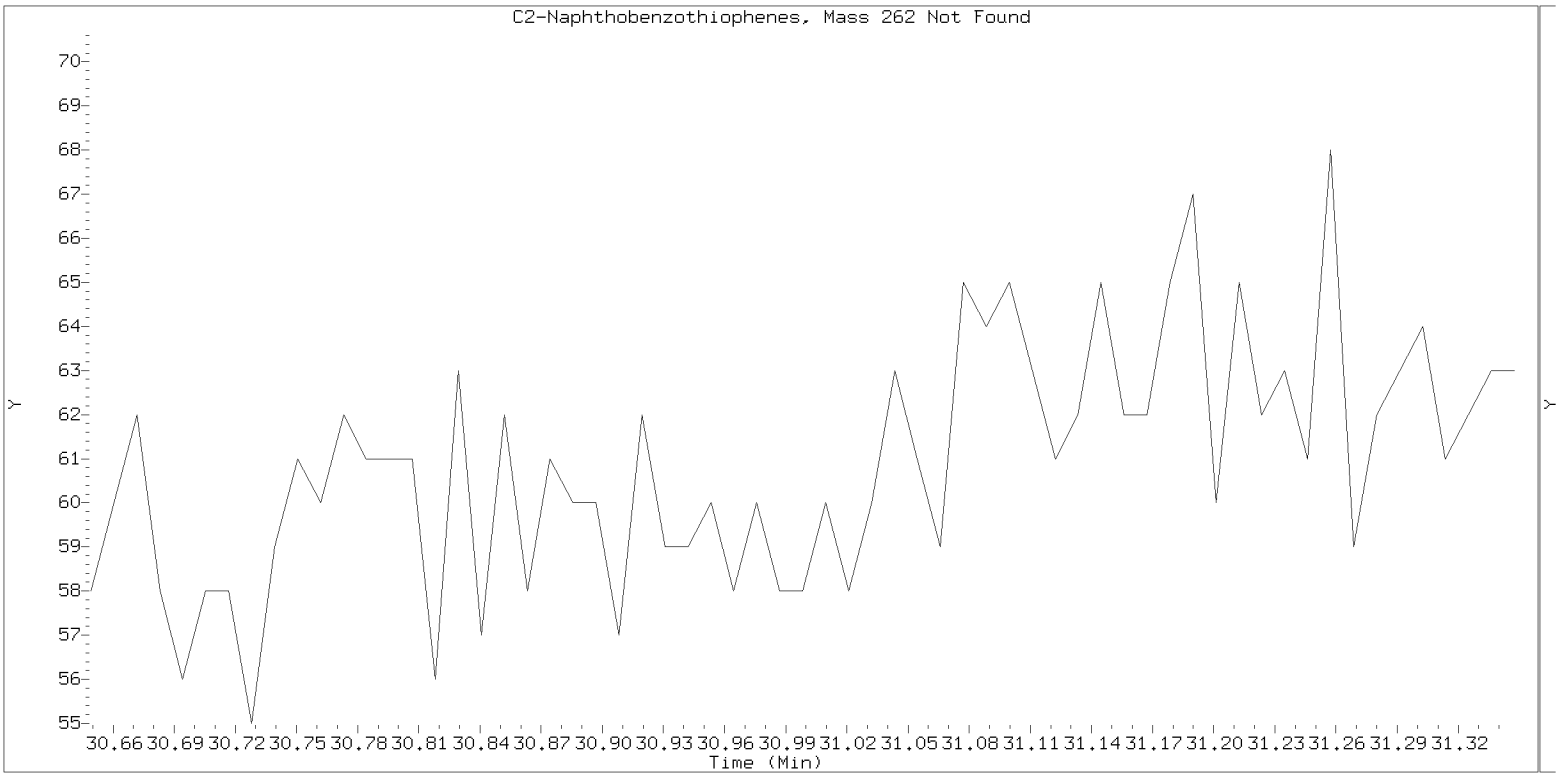

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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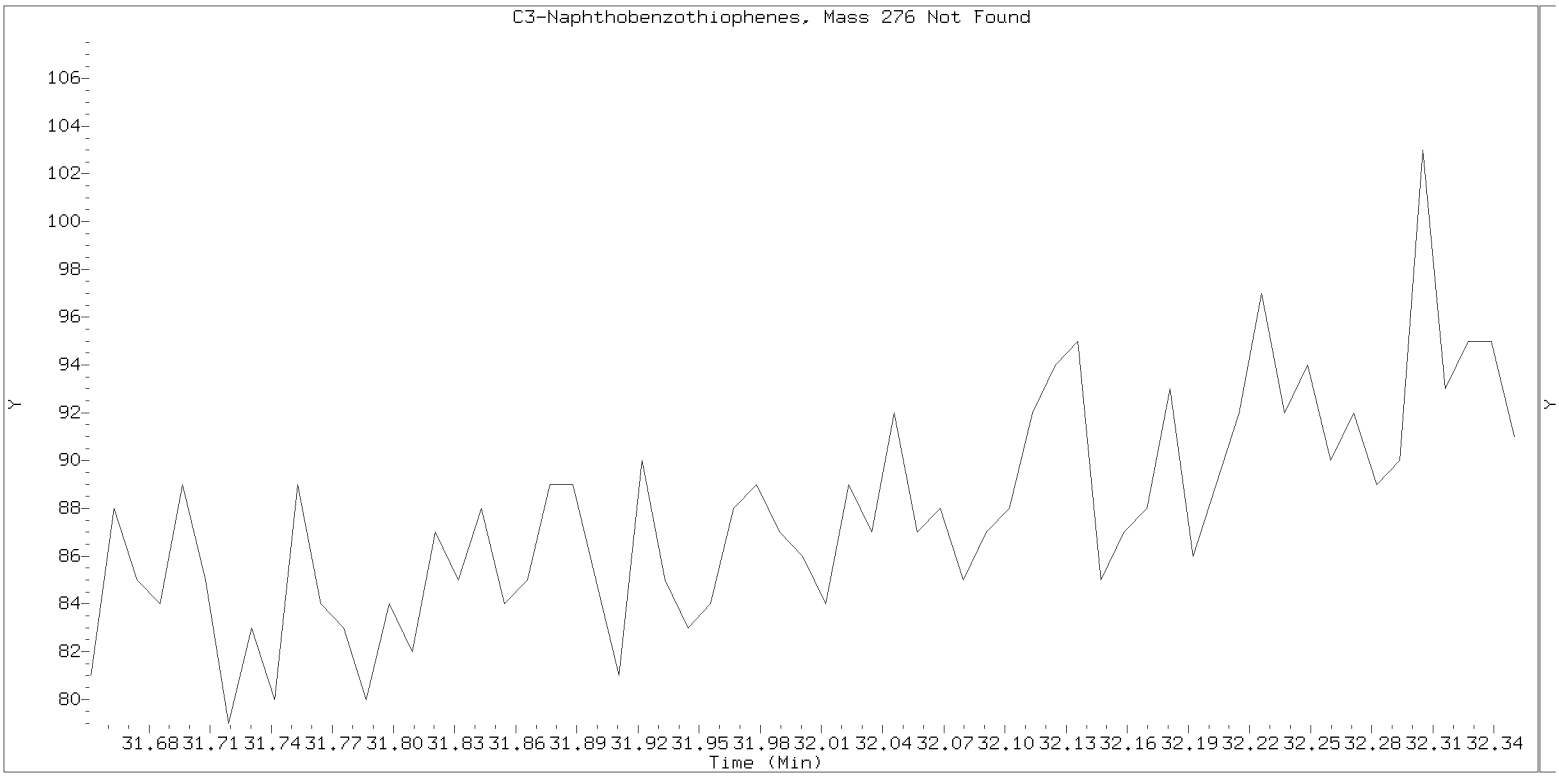

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

Lab ID: BJD0501-BLK2
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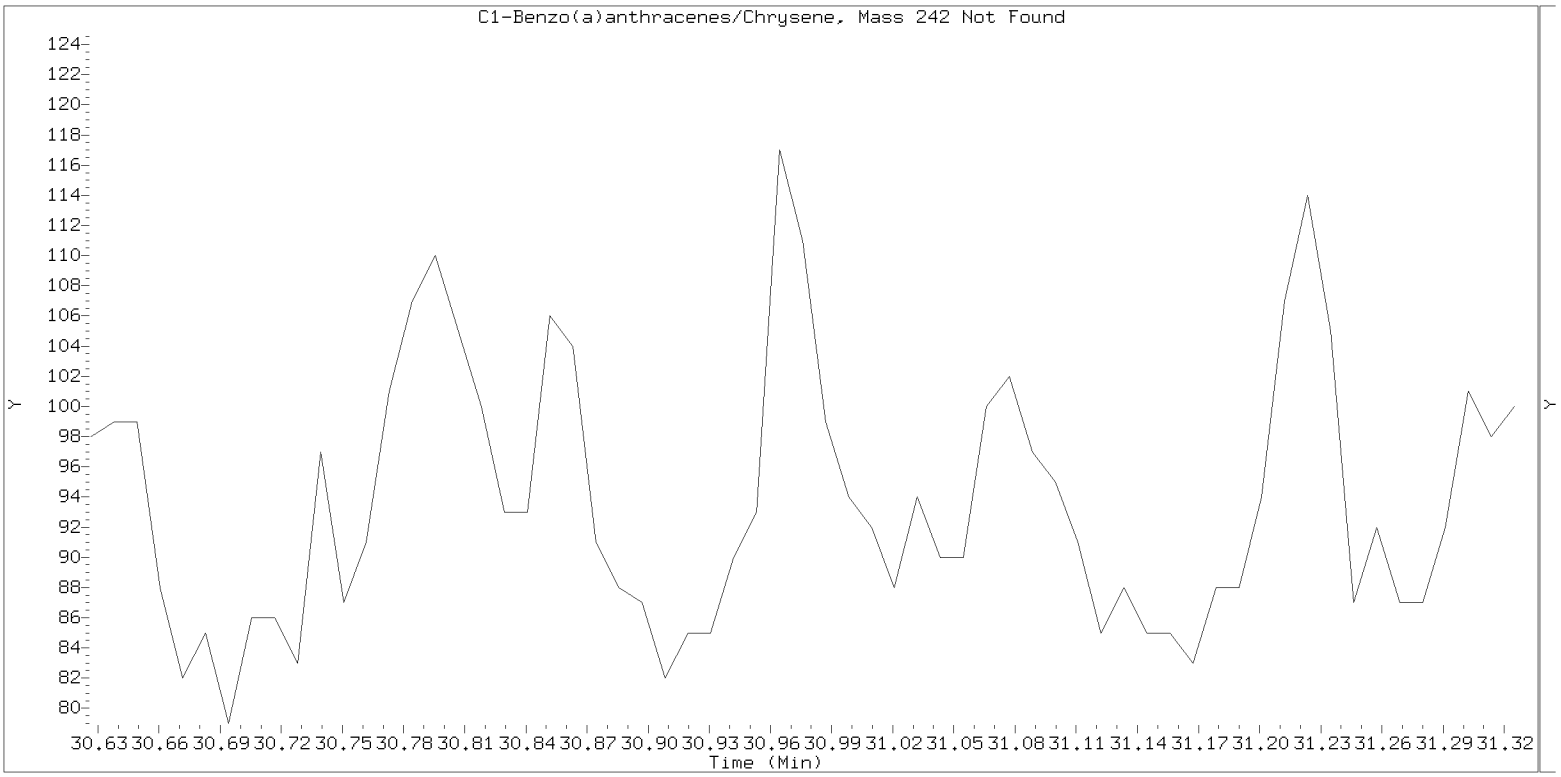

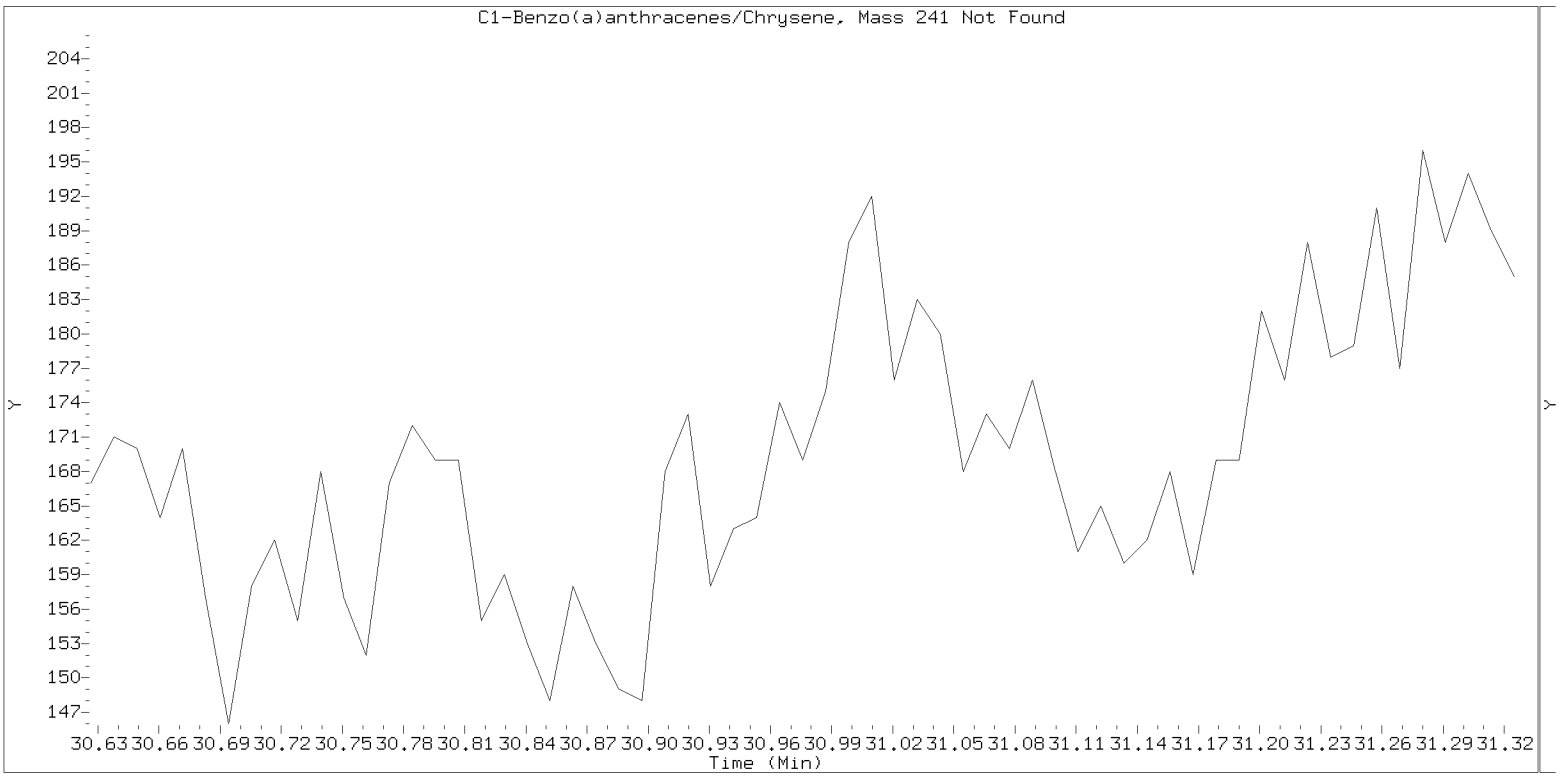

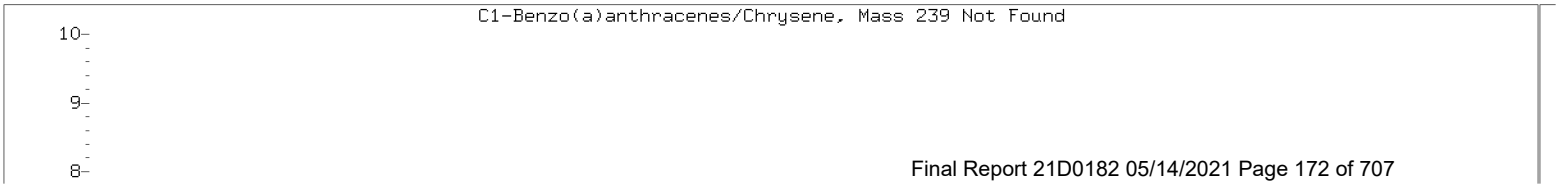

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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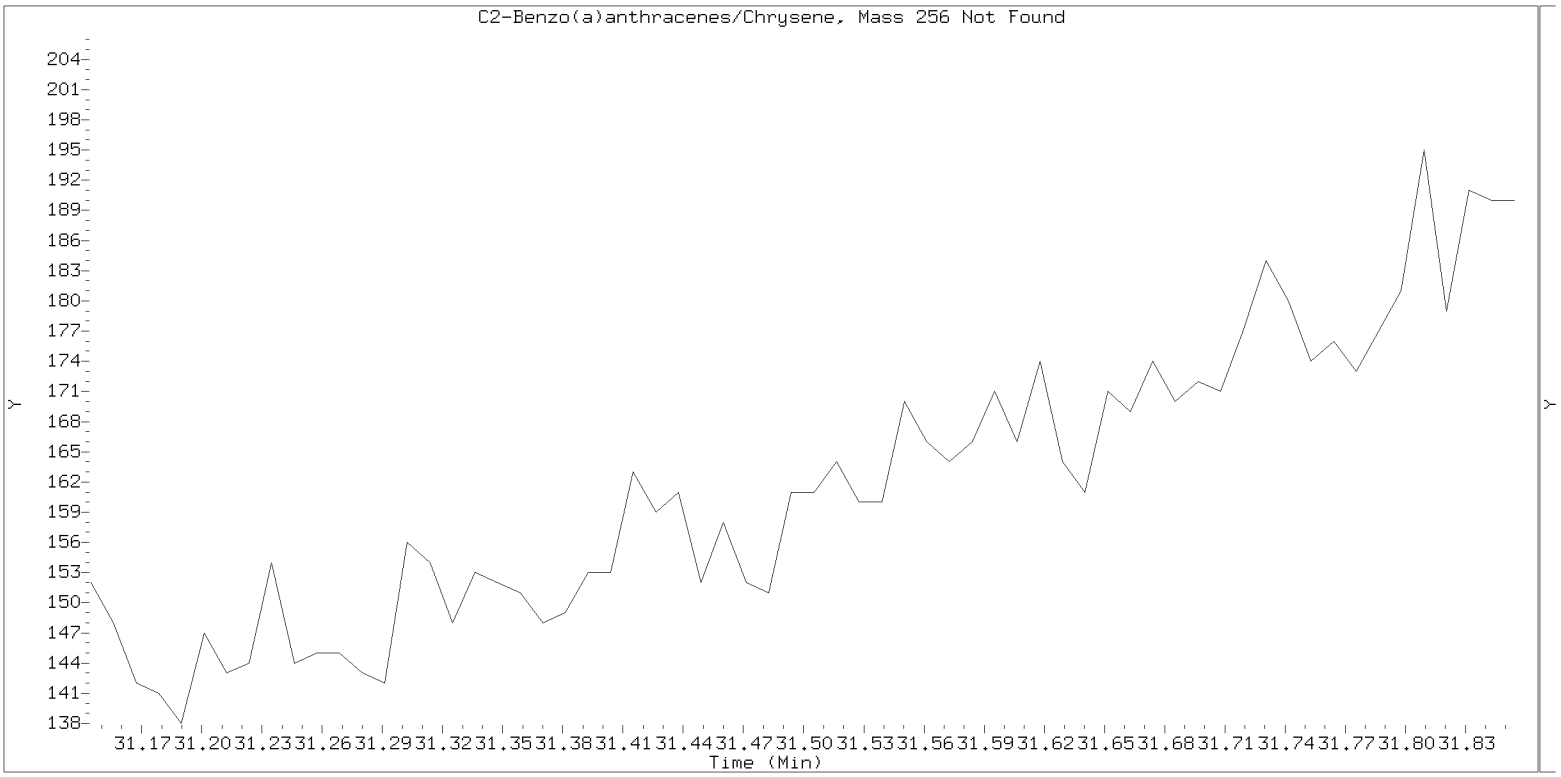

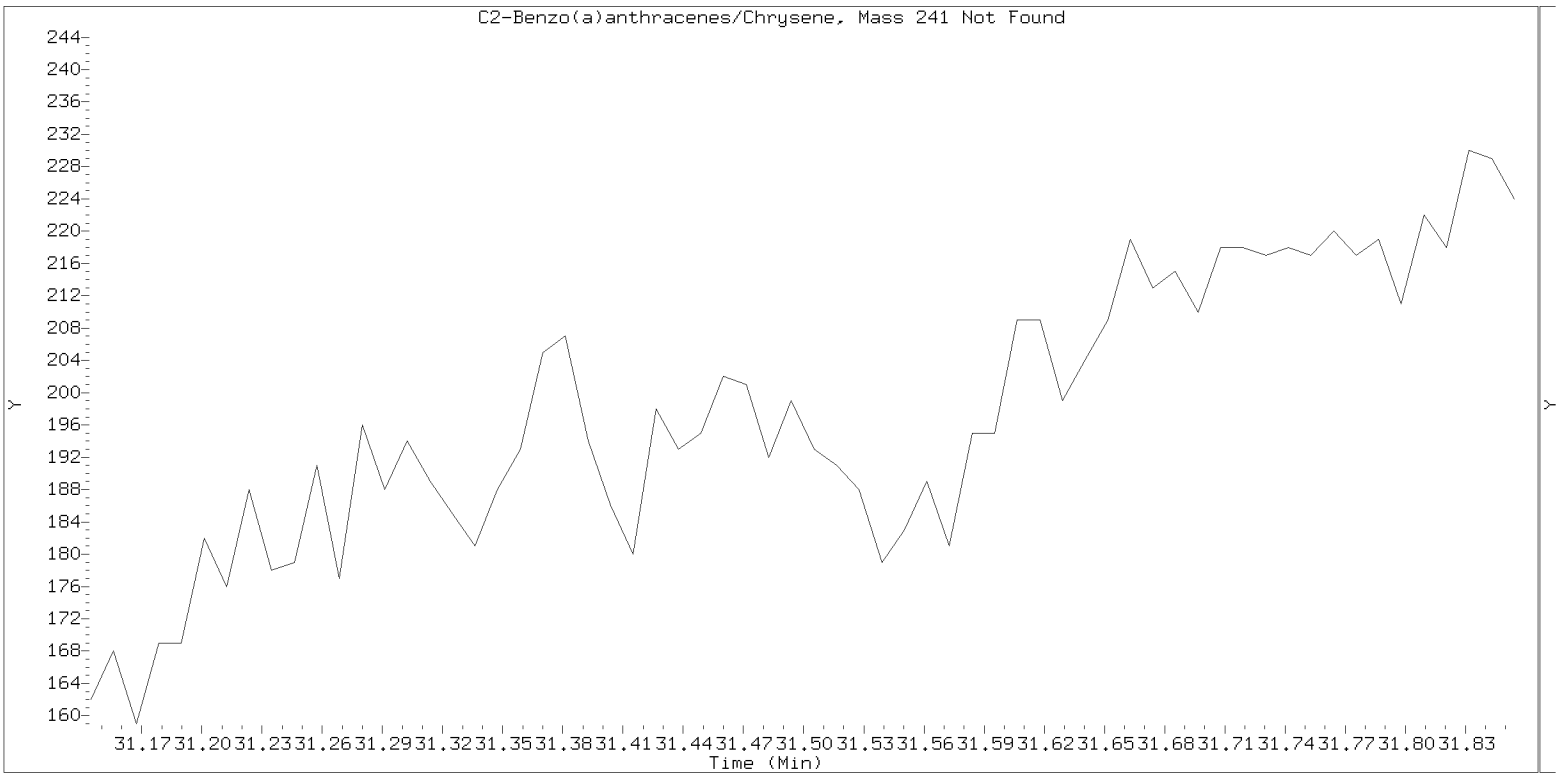

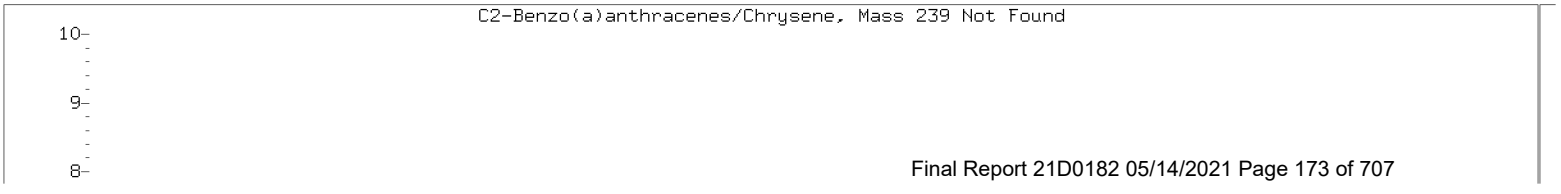

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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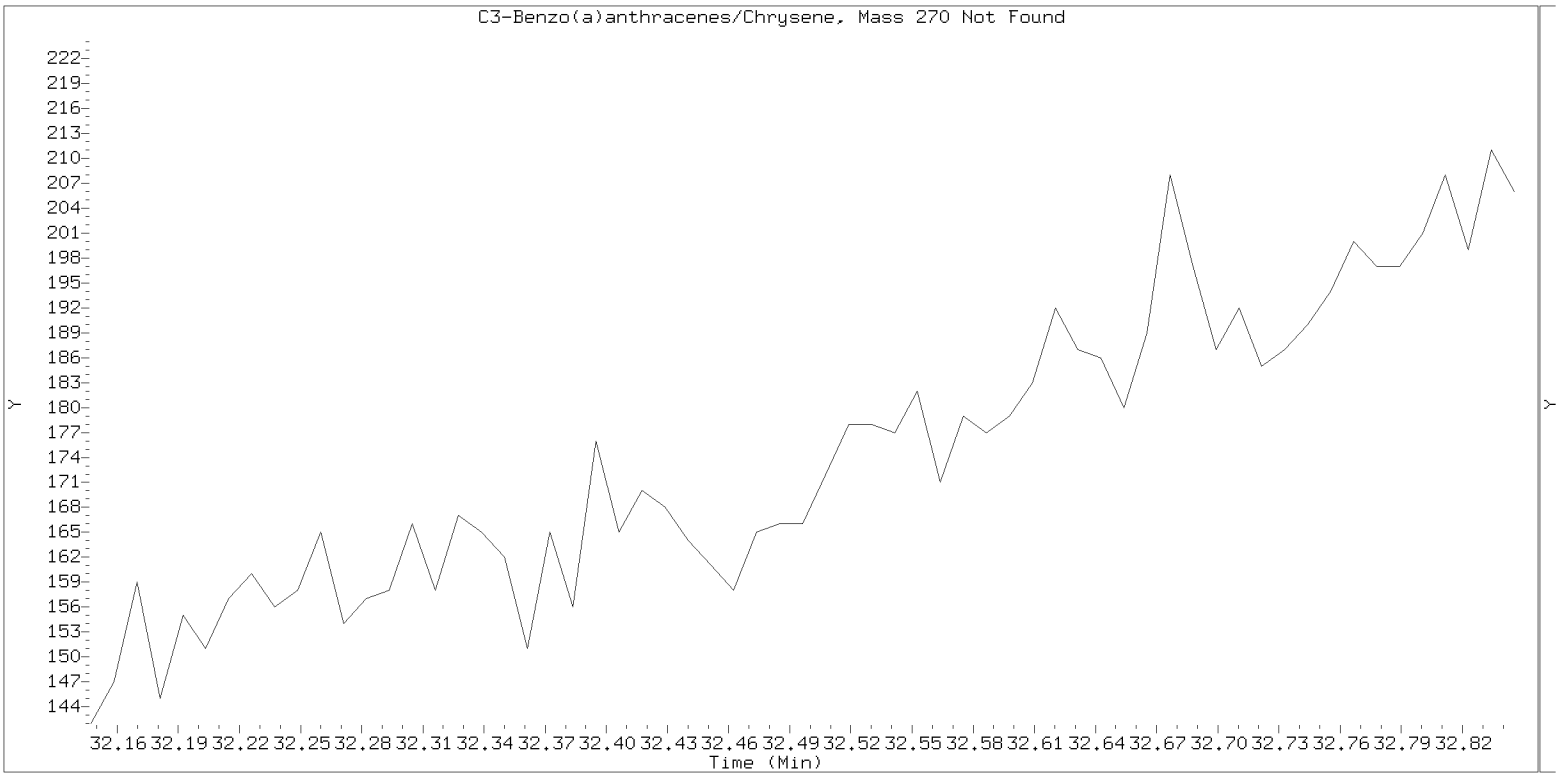

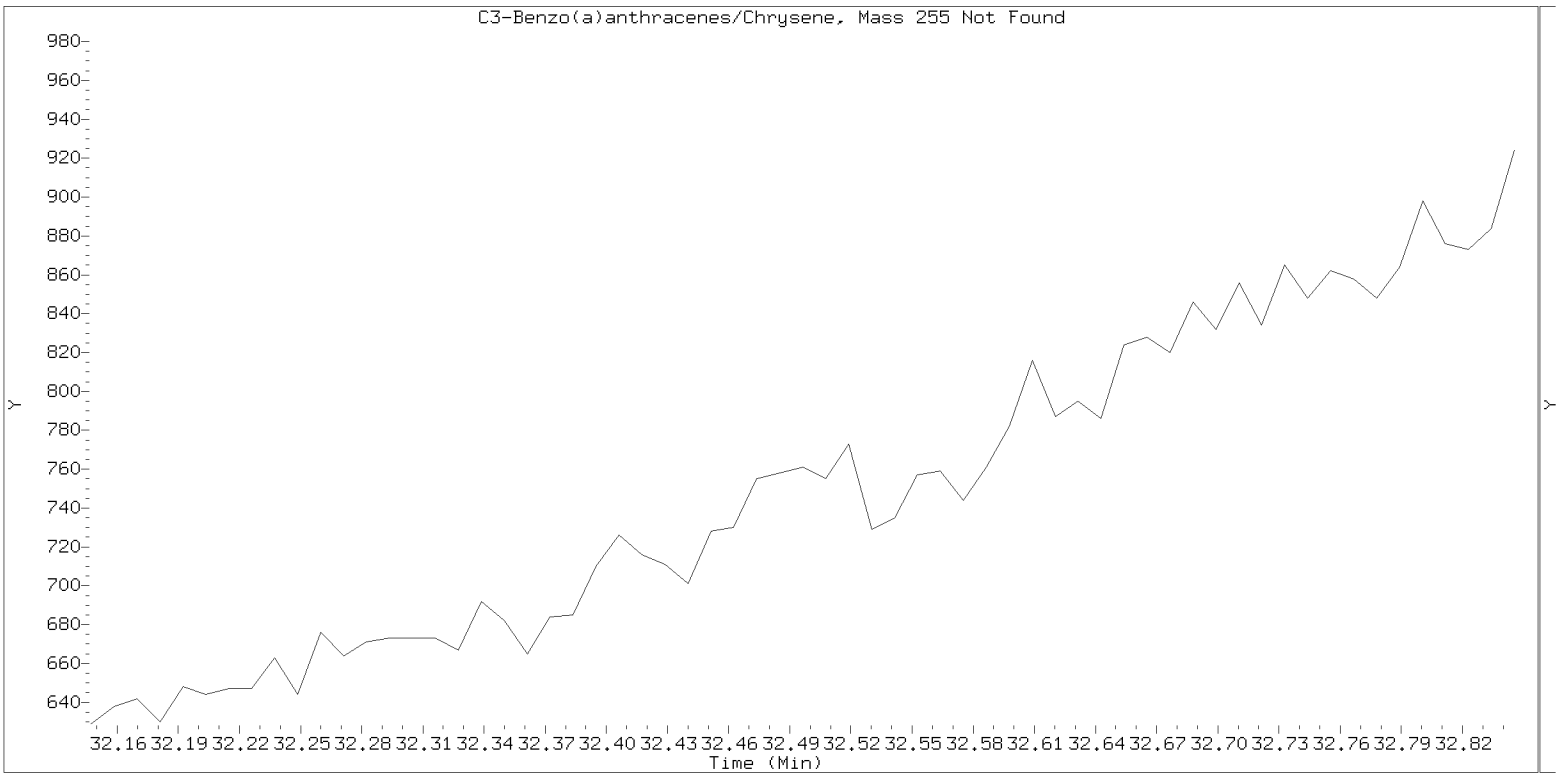

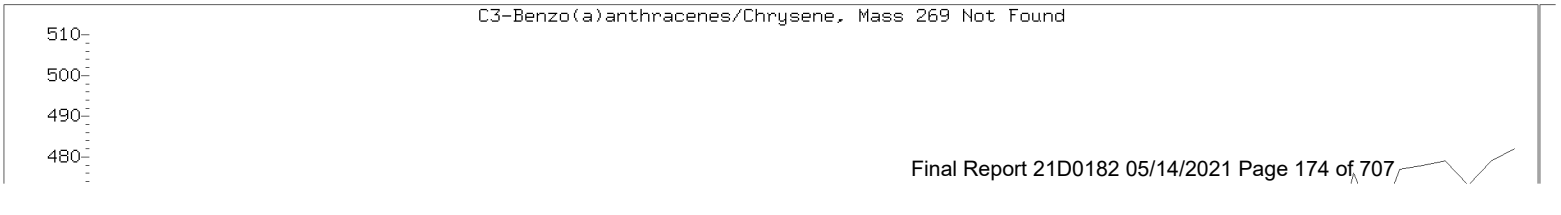

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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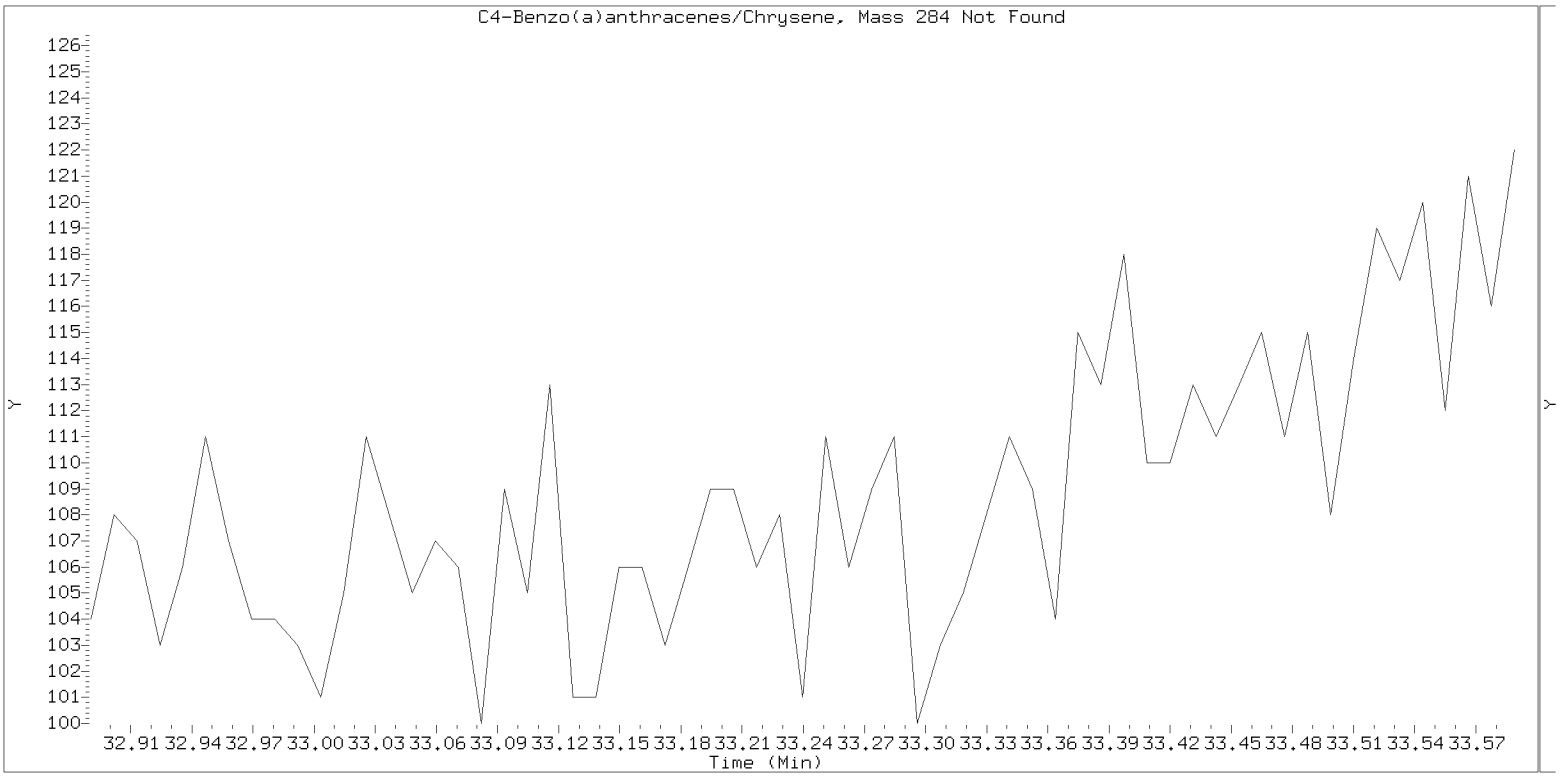

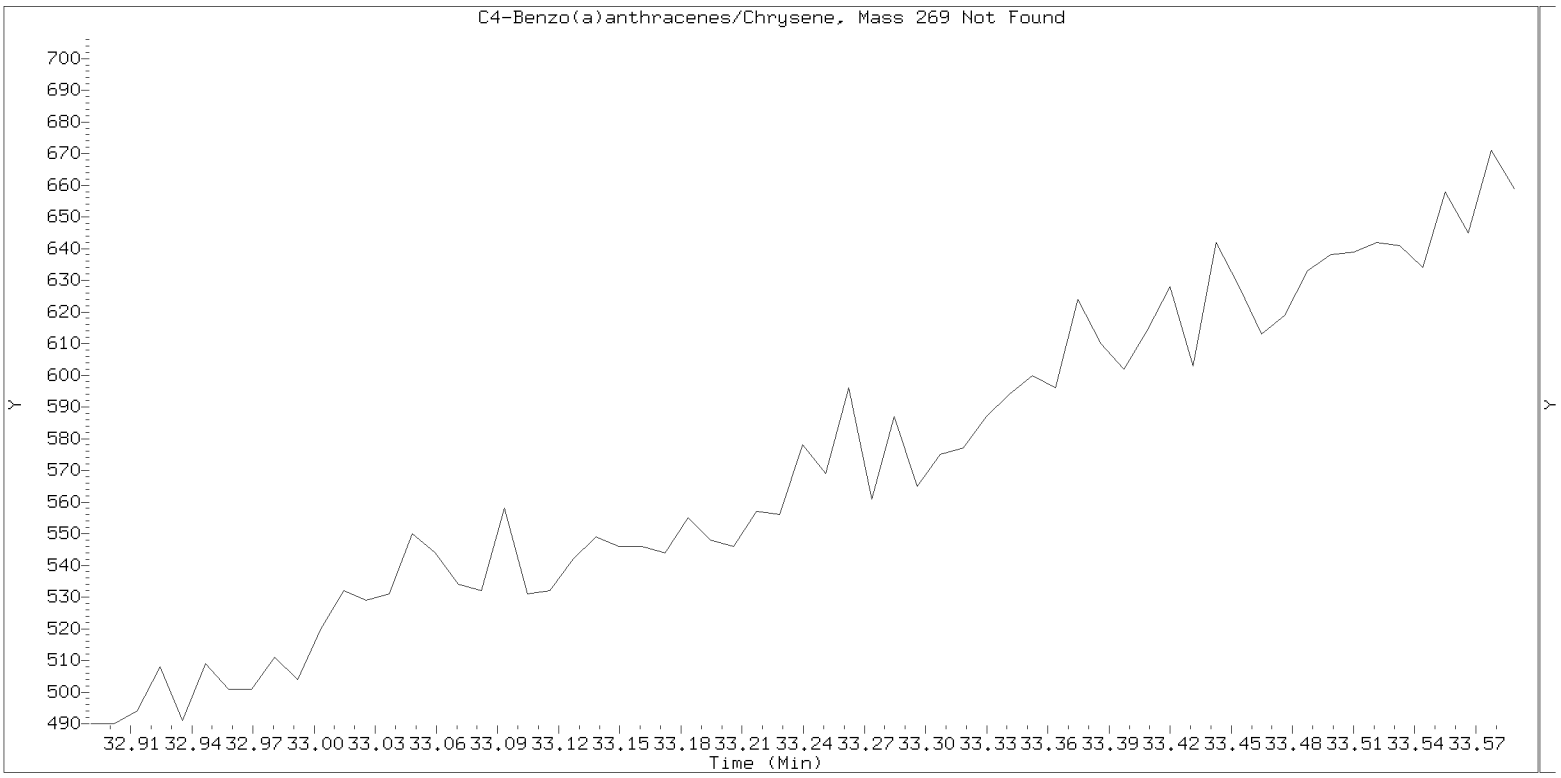

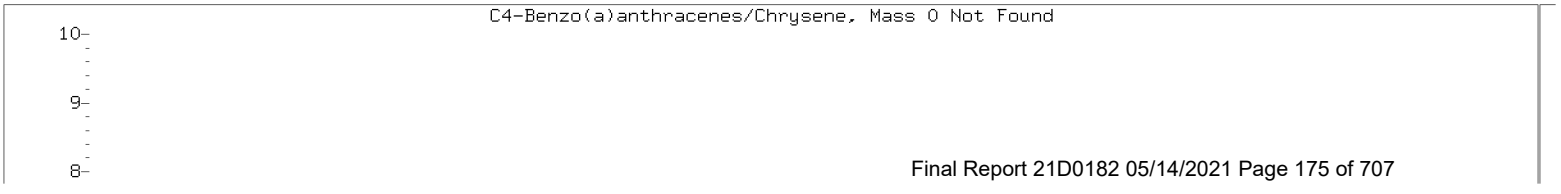

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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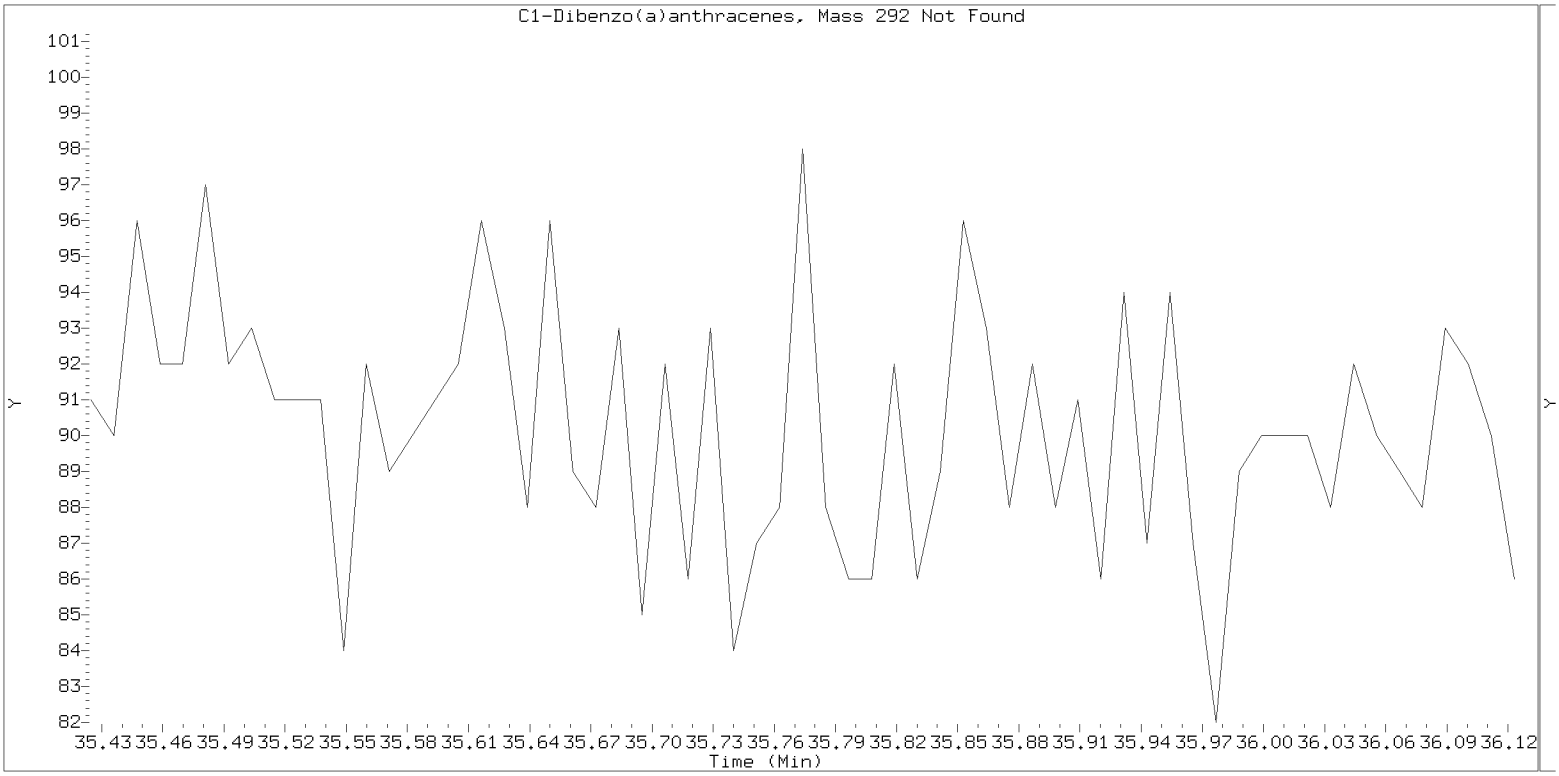

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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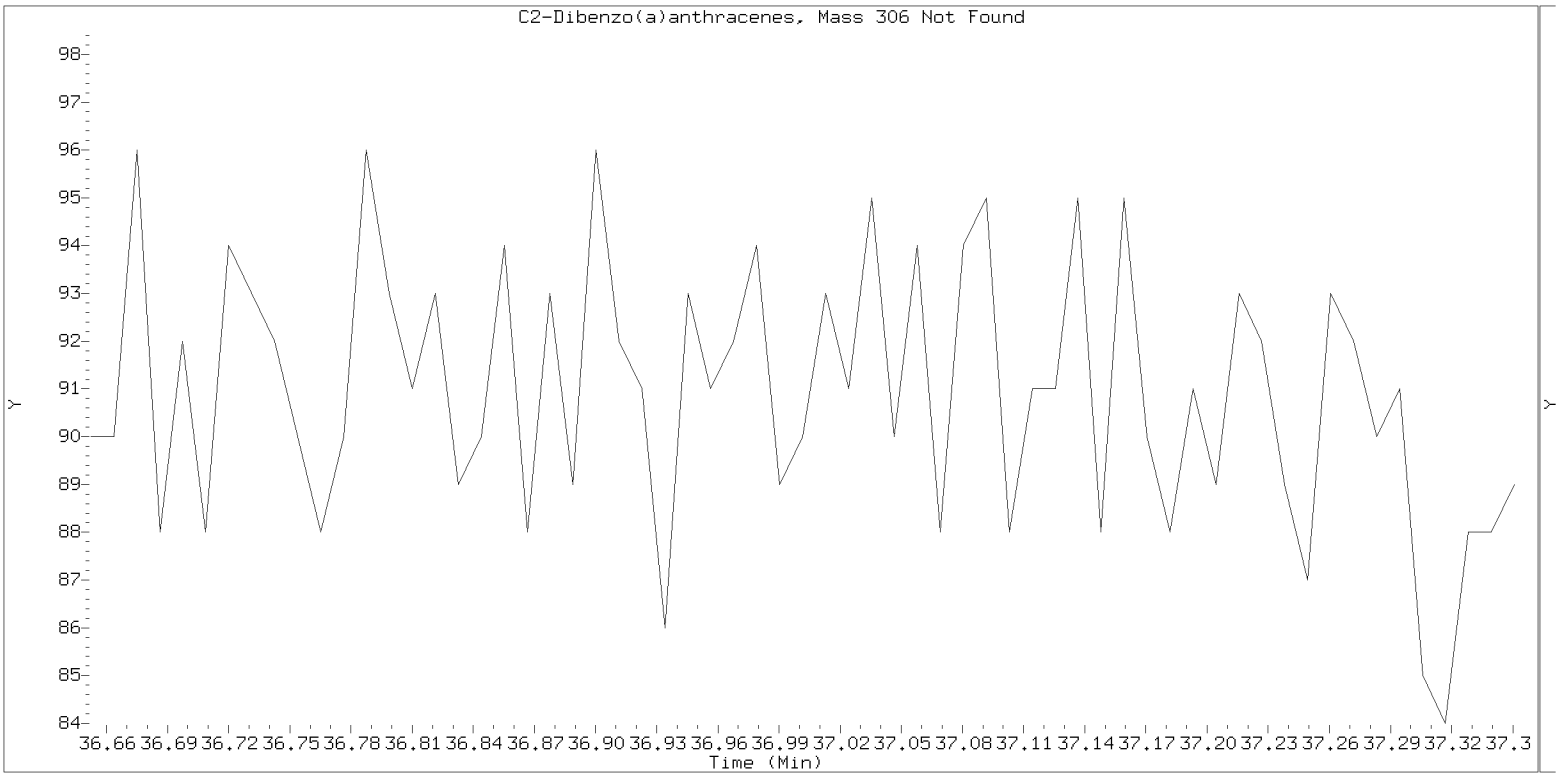

SIM ALKYL PNA RANGE ION WINDOWS - NT1421043033S.D

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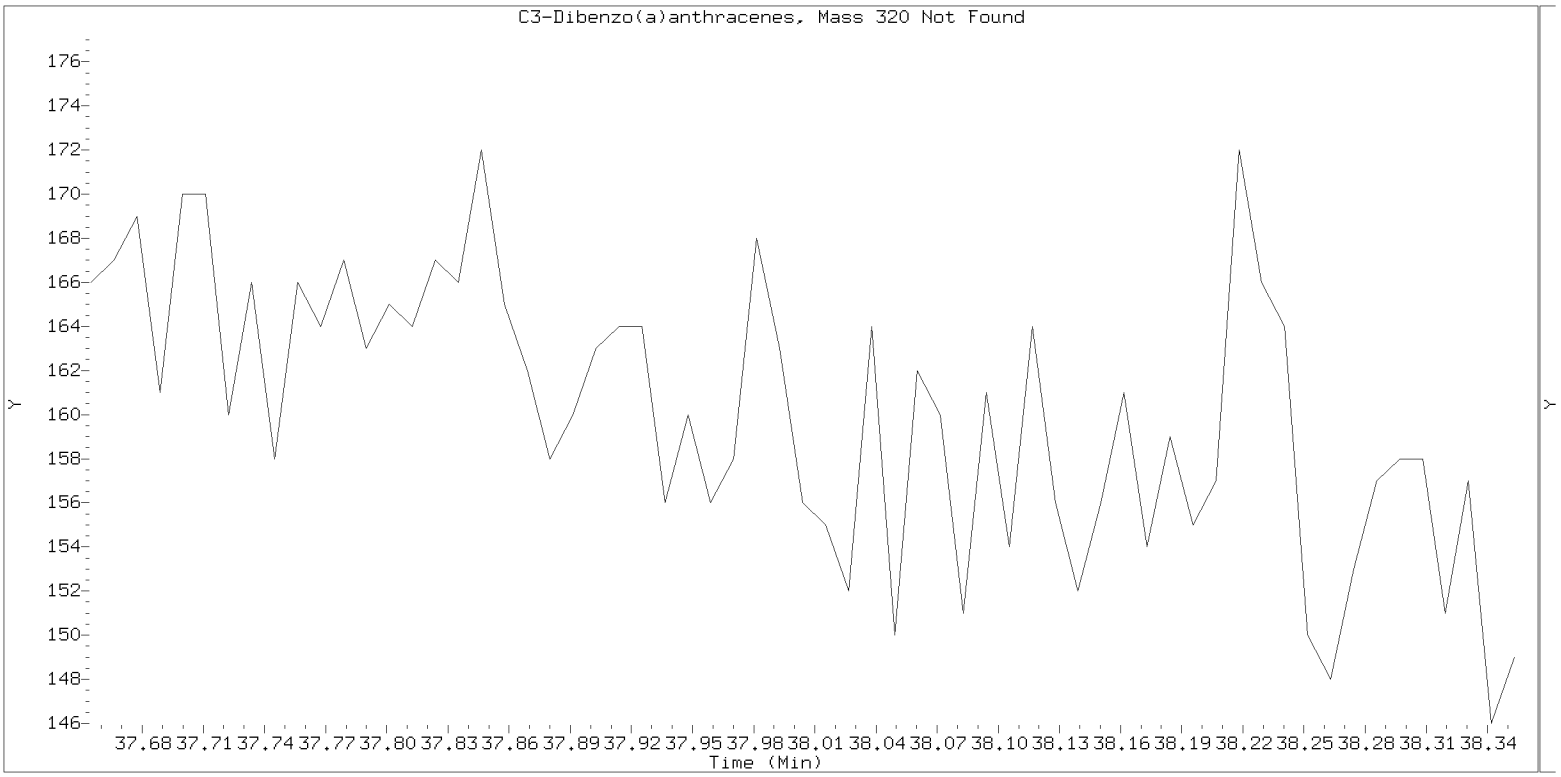


LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	05/01/21 09:58
Batch:	BJD0501	Laboratory ID:	BJD0501-BS1
Preparation:	EPA 3520C (Liq Liq)	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
trans-Decalin	3.00	1.69		56.2	30 - 160
cis-Decalin	3.00	1.85		61.8	30 - 160
Naphthalene	3.00	2.07		68.9	37 - 120
1-Methylnaphthalene	3.00	2.17		72.3	30 - 160
2-Methylnaphthalene	3.00	2.19		72.9	34 - 120
Biphenyl	3.00	2.23		74.3	30 - 160
2,6-Dimethylnaphthalene	3.00	2.29		76.4	30 - 160
Acenaphthylene	3.00	2.31	Q	77.0	32 - 120
Acenaphthene	3.00	2.50		83.2	40 - 120
Dibenzofuran	3.00	2.39		79.5	44 - 120
2,3,5-Trimethylnaphthalene	3.00	2.57	Q	85.6	30 - 160
Fluorene	3.00	2.53		84.4	43 - 120
Benzo(b)thiophene	3.00	2.10		70.0	30 - 160
Phenanthrene	3.00	2.31		76.9	43 - 120
Anthracene	3.00	2.16		72.1	30 - 120
Carbazole	3.00	2.43		81.0	30 - 160
1-Methylphenanthrene	3.00	2.52		83.9	30 - 160
Fluoranthene	3.00	2.46		82.1	46 - 138
Dibenzothiophene	3.00	1.91		63.6	30 - 160
Pyrene	3.00	2.47		82.2	47 - 124
Benzo(a)anthracene	3.00	2.31		76.9	38 - 134
Chrysene	3.00	2.50		83.2	52 - 120
Benzo(b)fluoranthene	3.00	2.72		90.6	35 - 127
Benzo(j)fluoranthene	3.00	2.34		78.0	49 - 120
Benzo(k)fluoranthene	3.00	2.54		84.7	37 - 129
Benzo(e)pyrene	3.00	2.56		85.3	30 - 160
Benzo(a)pyrene	3.00	2.12		70.6	24 - 120
Indeno(1,2,3-cd)pyrene	3.00	2.52		83.8	32 - 123
Dibenzo(a,h)anthracene	3.00	2.44		81.2	30 - 127
Benzo(g,h,i)perylene	3.00	2.76		92.1	26 - 124
Perylene	3.00	2.27		75.5	30 - 160

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Matrix:	Water	Analyzed:	05/01/21 10:46
Batch:	BJD0501	Laboratory ID:	BJD0501-BSD1
Preparation:	EPA 3520C (Liq Liq)	Sequence Name:	LCS Dup
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
trans-Decalin	3.00	1.68		55.8	0.708	30	30 - 160
cis-Decalin	3.00	1.74		57.9	6.44	30	30 - 160
Naphthalene	3.00	2.24		74.6	7.97	30	37 - 120
1-Methylnaphthalene	3.00	2.37		79.1	8.98	30	30 - 160
2-Methylnaphthalene	3.00	2.31		77.0	5.47	30	34 - 120
Biphenyl	3.00	2.43		80.8	8.43	30	30 - 160
2,6-Dimethylnaphthalene	3.00	2.38		79.3	3.76	30	30 - 160
Acenaphthylene	3.00	2.57	Q	85.5	10.5	30	32 - 120
Acenaphthene	3.00	2.74		91.5	9.53	30	40 - 120
Dibenzofuran	3.00	2.63		87.6	9.62	30	44 - 120
2,3,5-Trimethylnaphthalene	3.00	2.80	Q	93.4	8.78	30	30 - 160
Fluorene	3.00	2.80		93.5	10.3	30	43 - 120
Benzo(b)thiophene	3.00	2.32		77.3	9.91	30	30 - 160
Phenanthrene	3.00	2.57		85.6	10.7	30	43 - 120
Anthracene	3.00	2.44		81.5	12.2	30	30 - 120
Carbazole	3.00	2.58		86.1	6.16	30	30 - 160
1-Methylphenanthrene	3.00	2.82		94.0	11.3	30	30 - 160
Fluoranthene	3.00	2.71		90.4	9.60	30	46 - 138
Dibenzothiophene	3.00	2.33		77.6	19.9	30	30 - 160
Pyrene	3.00	2.65		88.4	7.29	30	47 - 124
Benzo(a)anthracene	3.00	2.43		81.2	5.35	30	38 - 134
Chrysene	3.00	2.79		92.8	10.9	30	52 - 120
Benzo(b)fluoranthene	3.00	2.92		97.4	7.22	30	35 - 127
Benzo(j)fluoranthene	3.00	2.51		83.6	6.93	30	49 - 120
Benzo(k)fluoranthene	3.00	2.84		94.6	11.0	30	37 - 129
Benzo(e)pyrene	3.00	2.80		93.5	9.10	30	30 - 160
Benzo(a)pyrene	3.00	2.21		73.6	4.20	30	24 - 120
Indeno(1,2,3-cd)pyrene	3.00	2.70		89.9	7.01	30	32 - 123
Dibenzo(a,h)anthracene	3.00	2.58		86.2	5.87	30	30 - 127
Benzo(g,h,i)perylene	3.00	2.93		97.8	6.00	30	26 - 124
Perylene	3.00	2.35		78.3	3.65	30	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

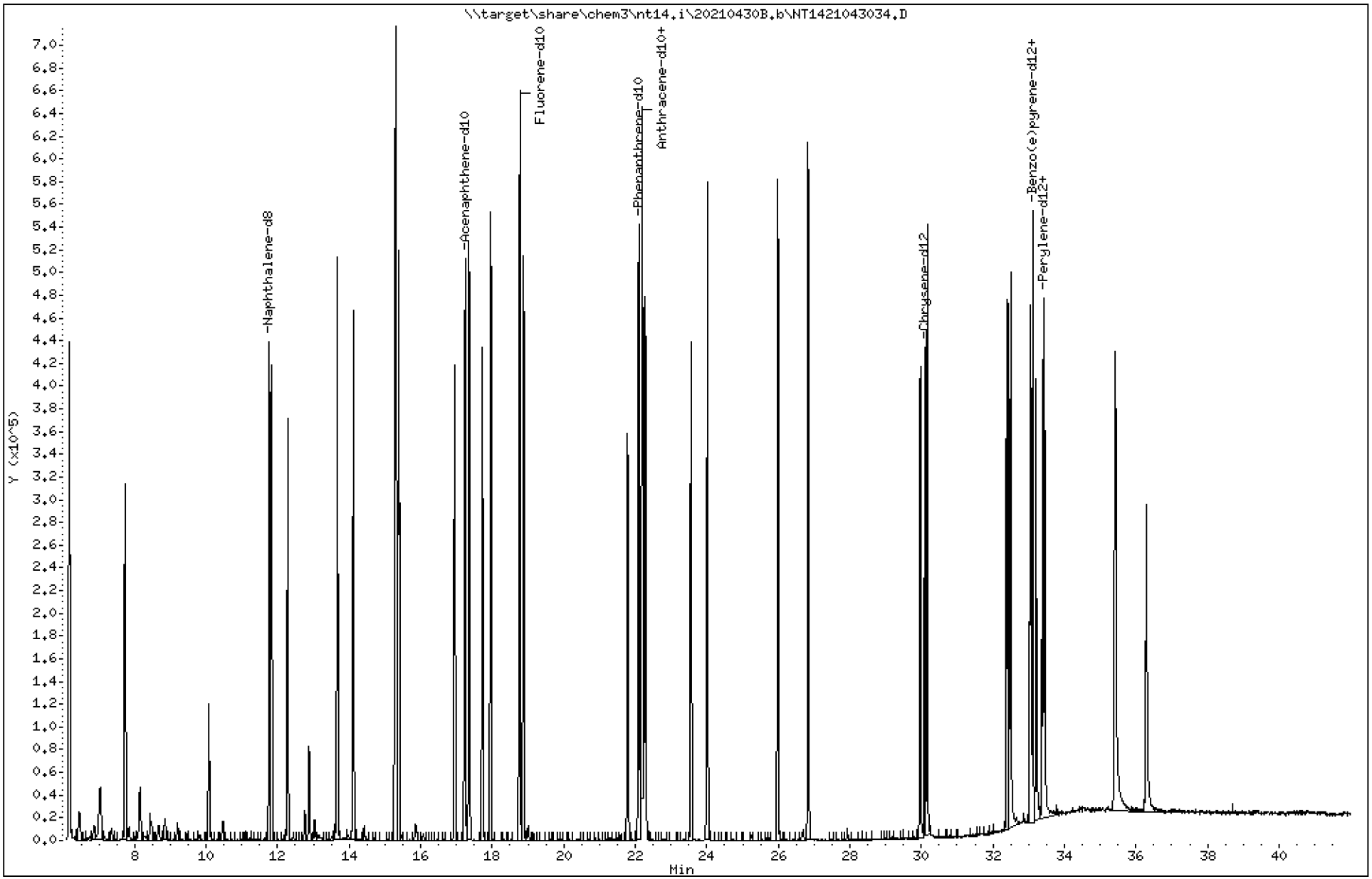
Instrument: nt14.i

Sample Info: BJD0501-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

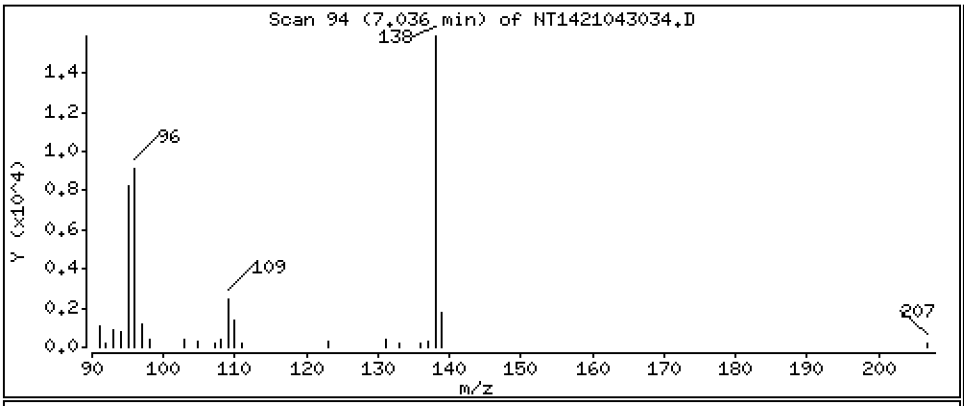
Operator: VTS

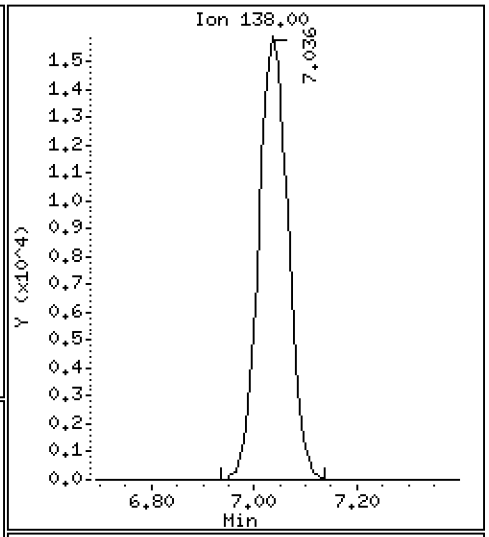
Column phase: Rxi-17Sil MS

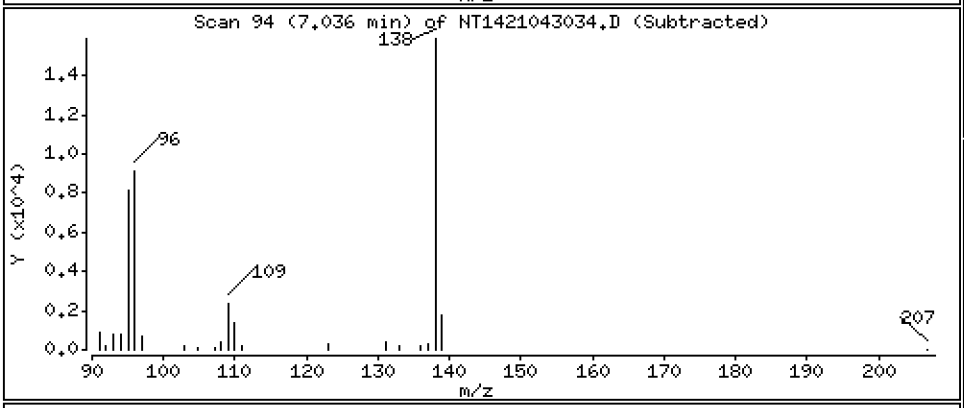
Column diameter: 0.25

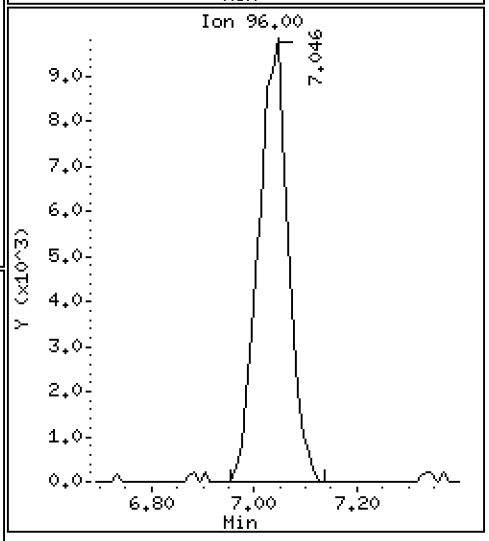
1 trans-Decalin

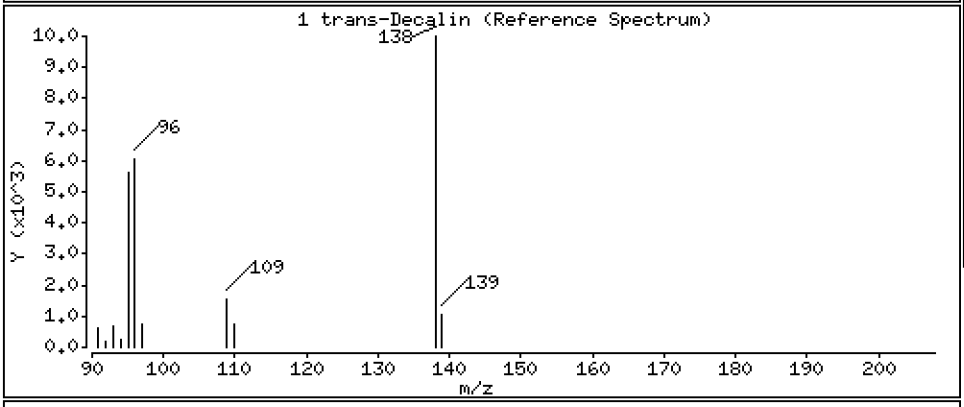
Concentration: 1.687 ug/mL

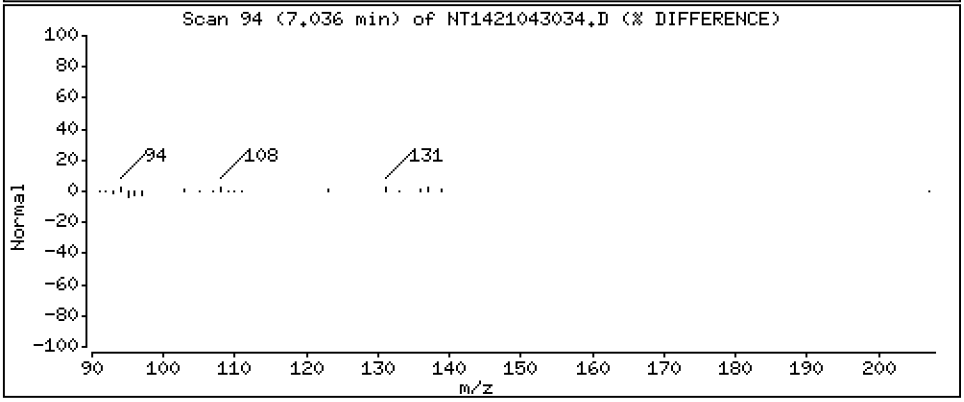












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

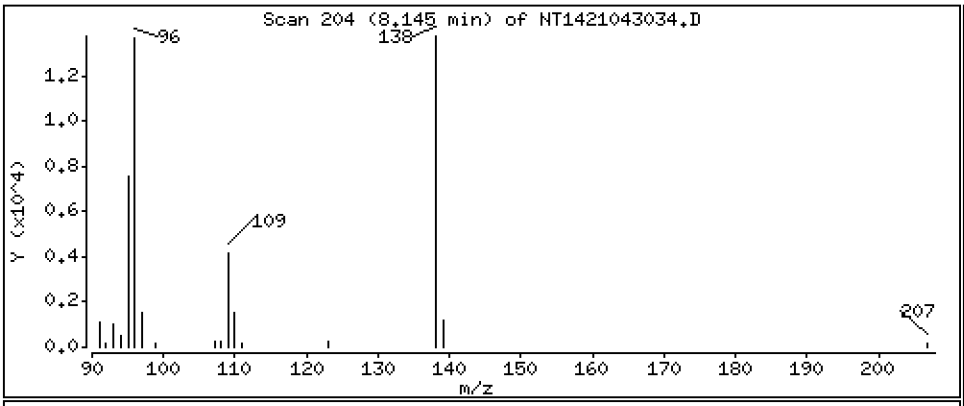
Operator: VTS

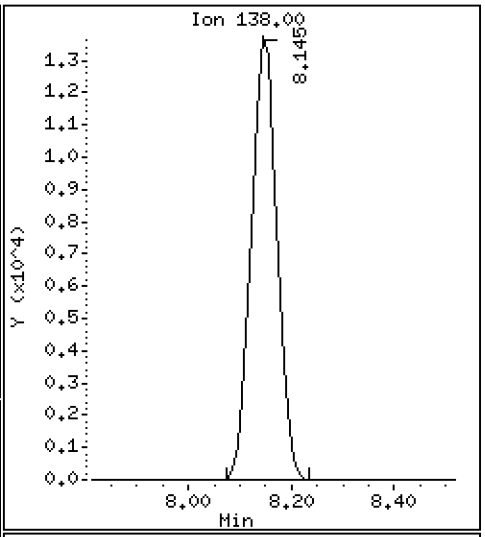
Column phase: Rxi-17Sil MS

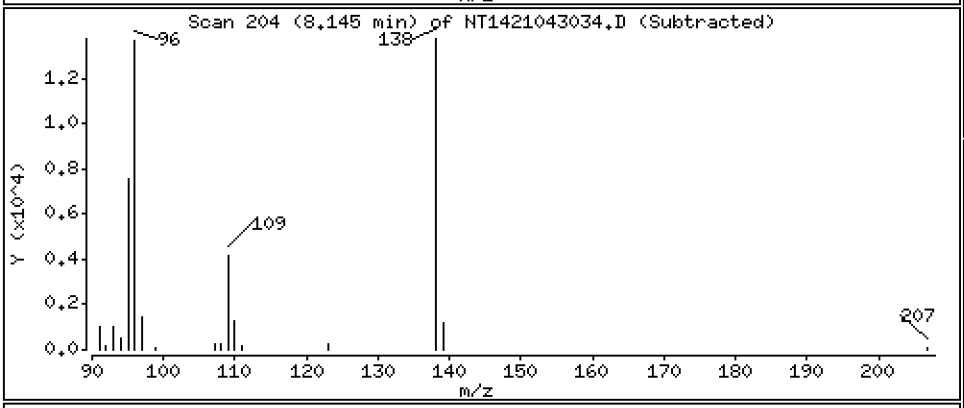
Column diameter: 0.25

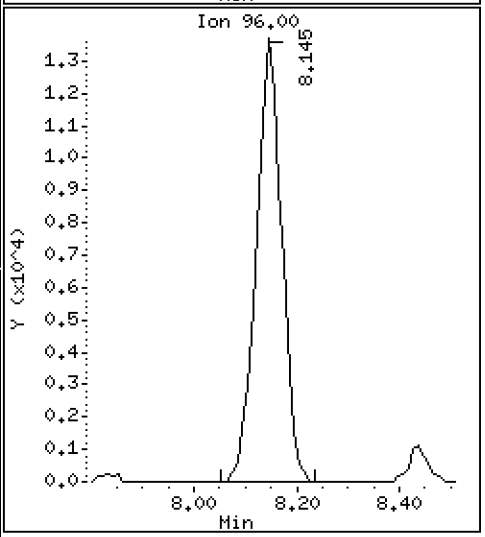
2 cis-Decalin

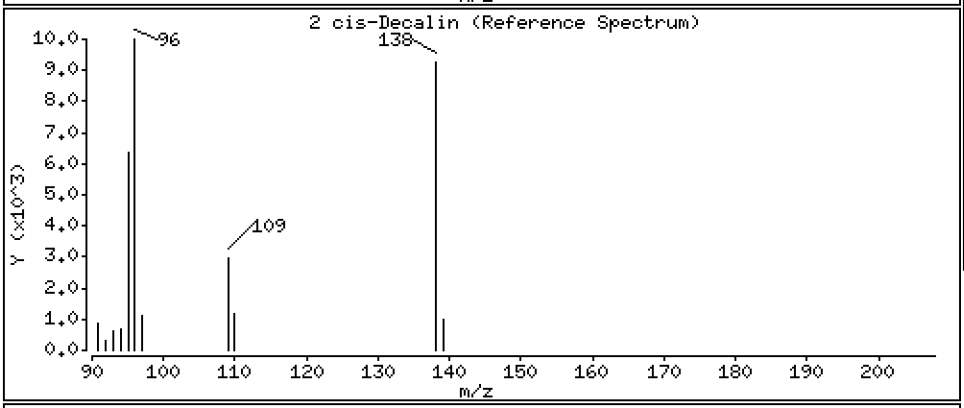
Concentration: 1.854 ug/mL

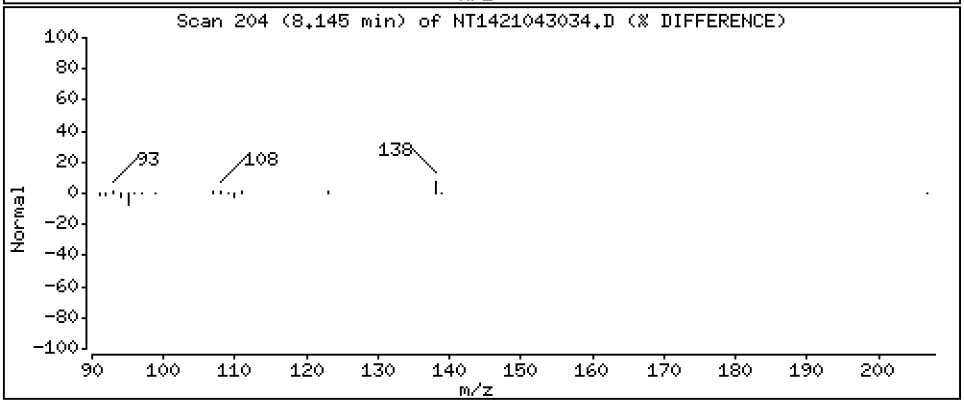












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

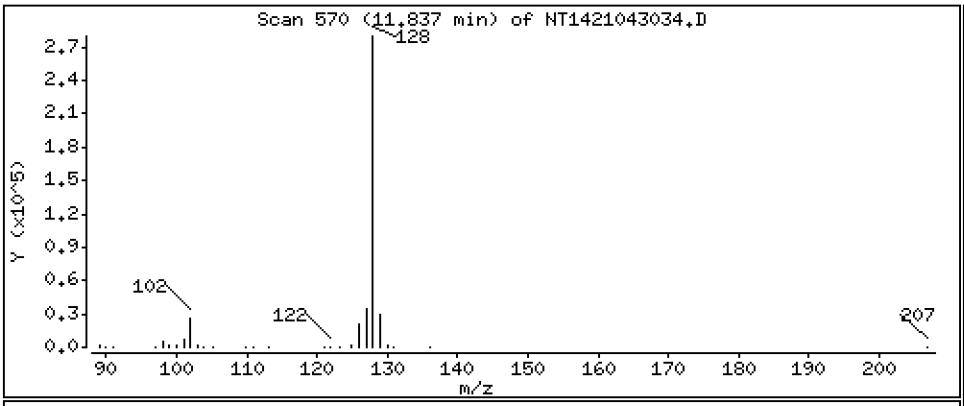
Operator: VTS

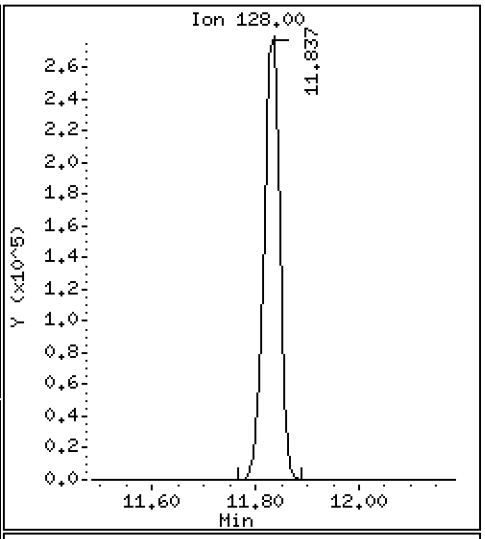
Column phase: Rxi-17Sil MS

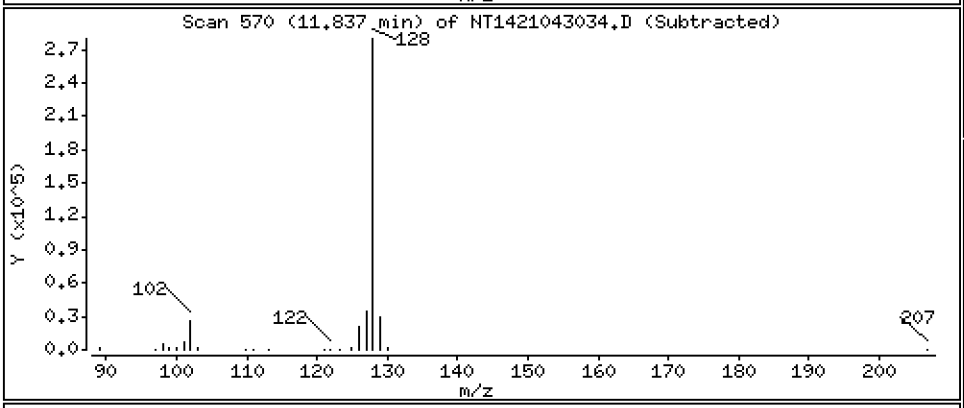
Column diameter: 0.25

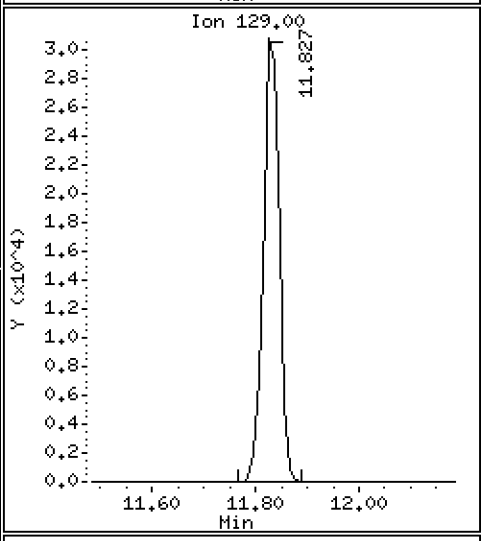
7 Naphthalene

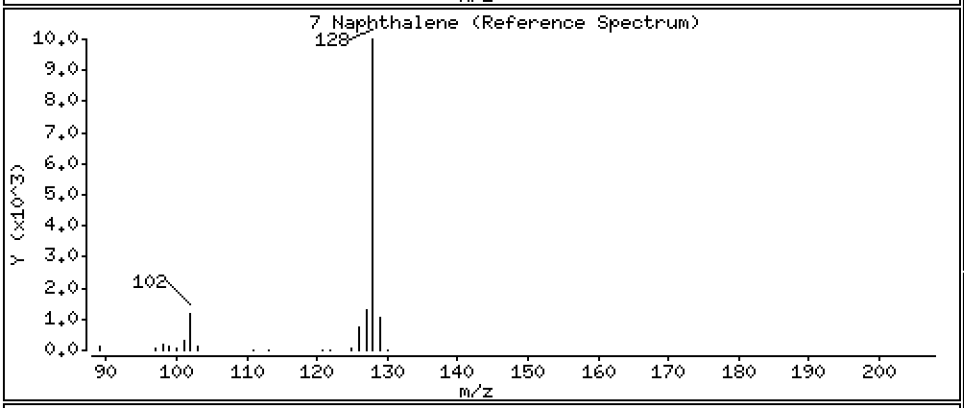
Concentration: 2.067 ug/mL

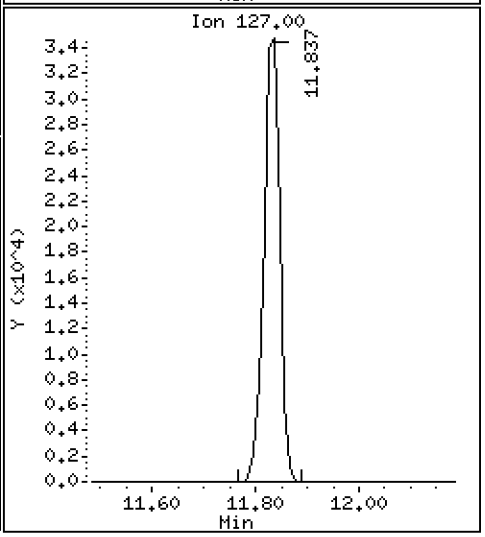


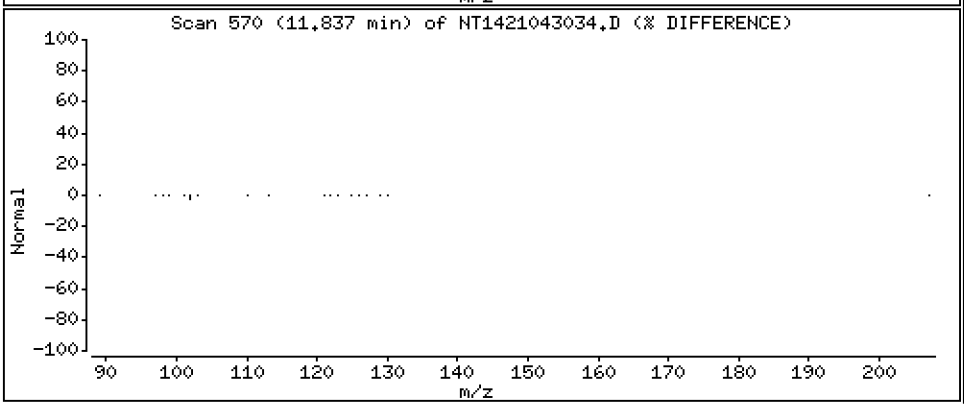












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

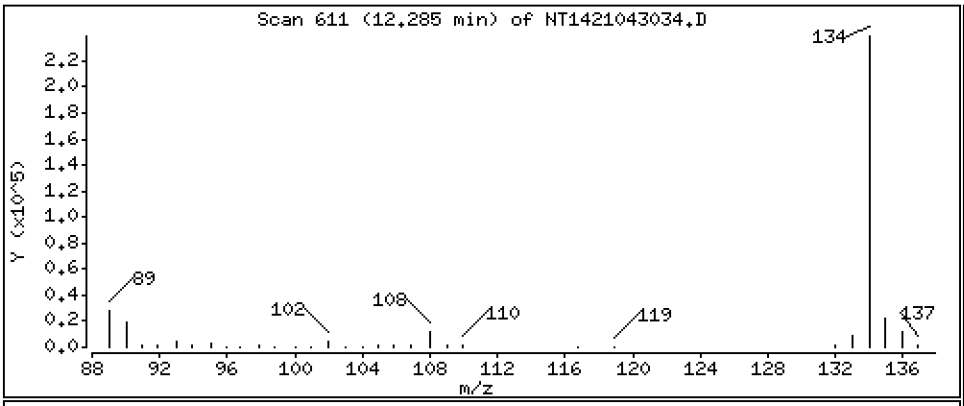
Operator: VTS

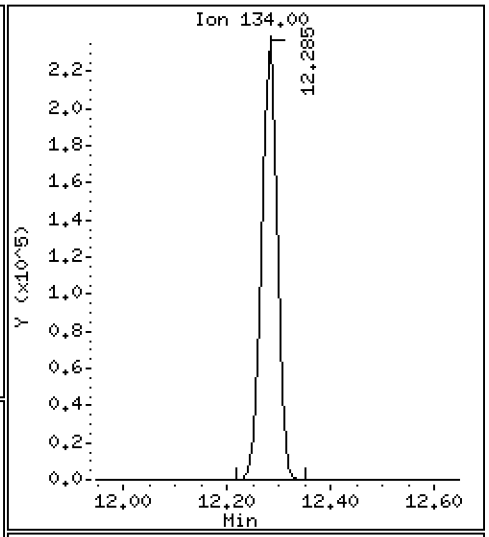
Column phase: Rxi-17Sil MS

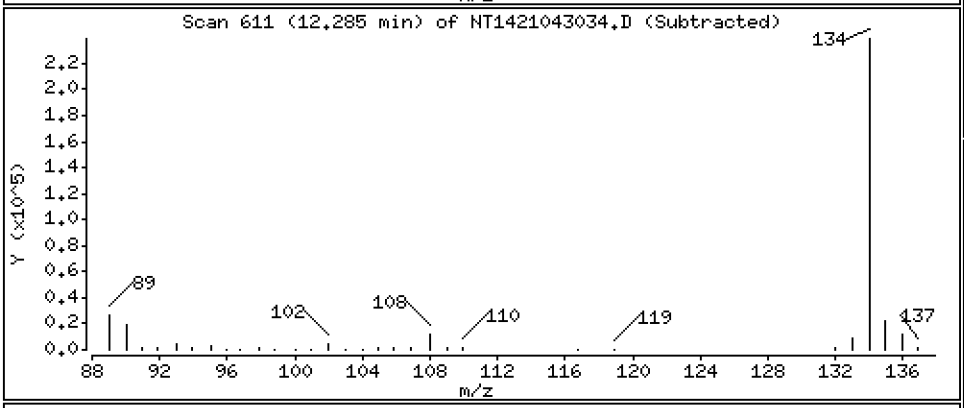
Column diameter: 0.25

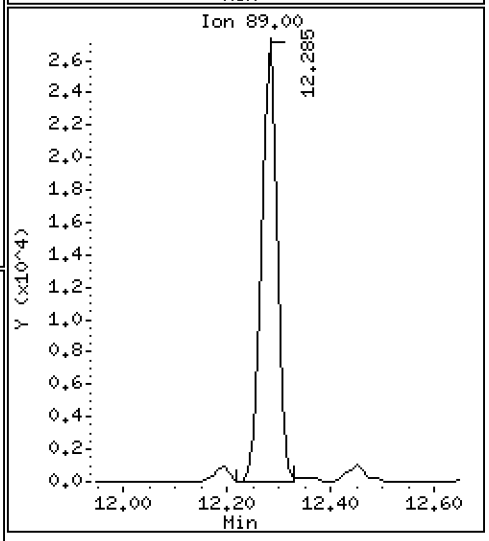
12 Benzo(b)thiophene

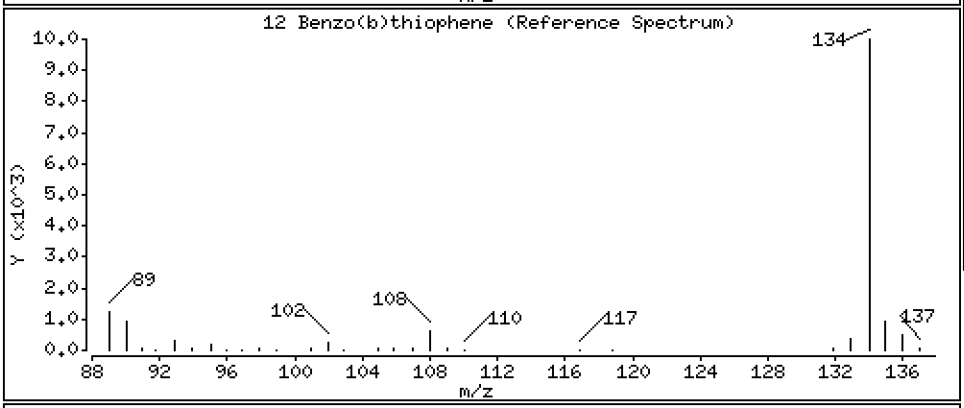
Concentration: 2.101 ug/mL

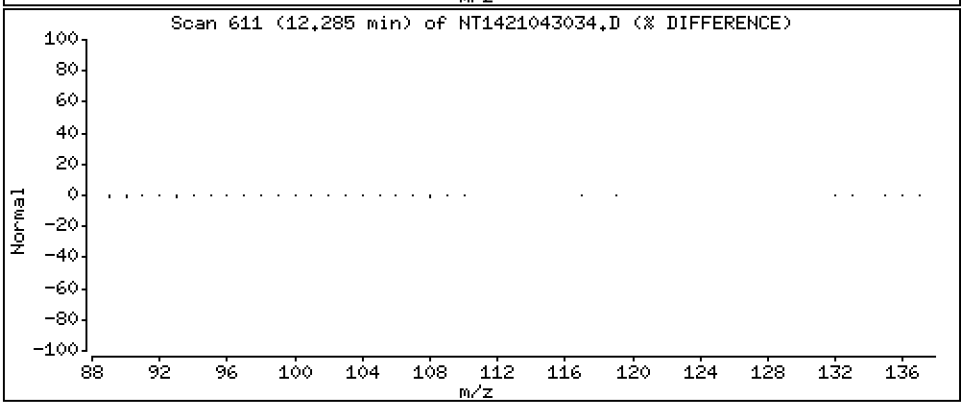












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

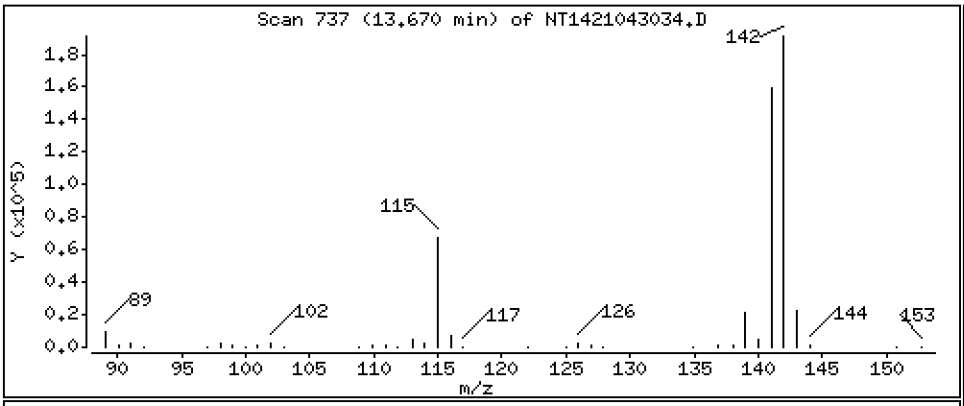
Operator: VTS

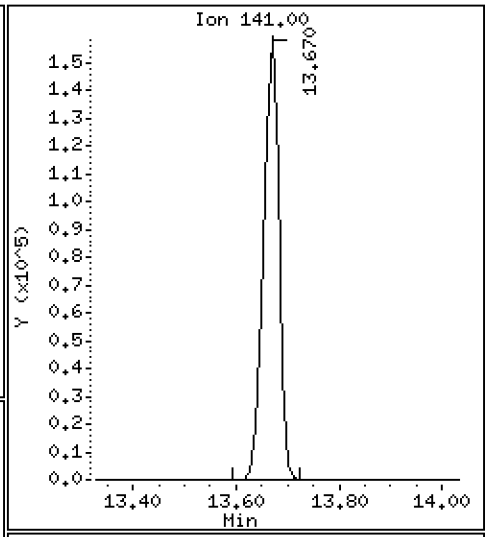
Column phase: Rxi-17Sil MS

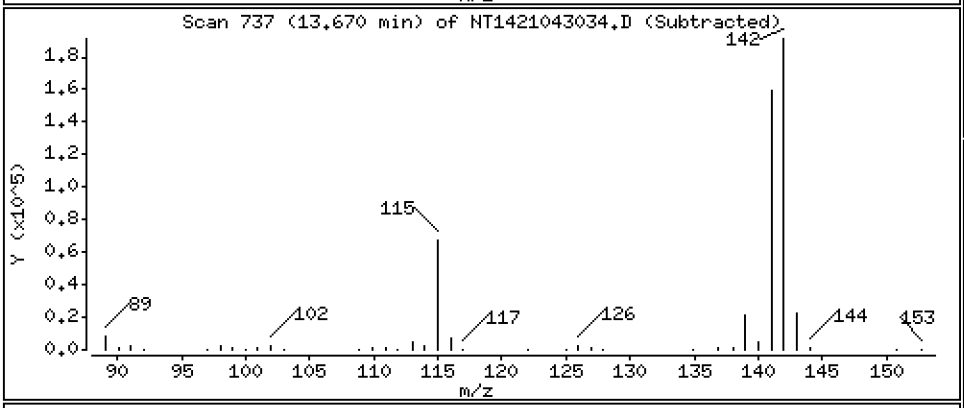
Column diameter: 0.25

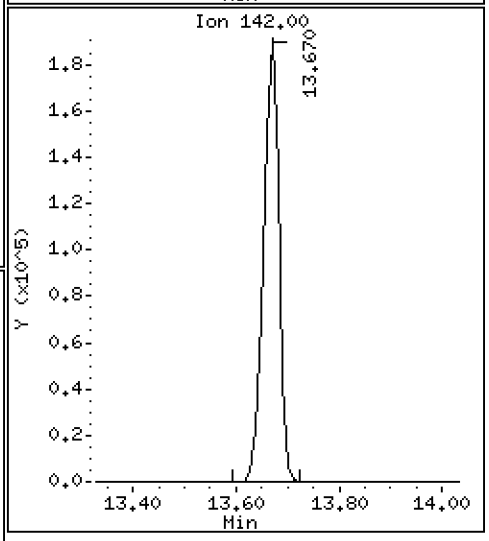
16 2-Methylnaphthalene

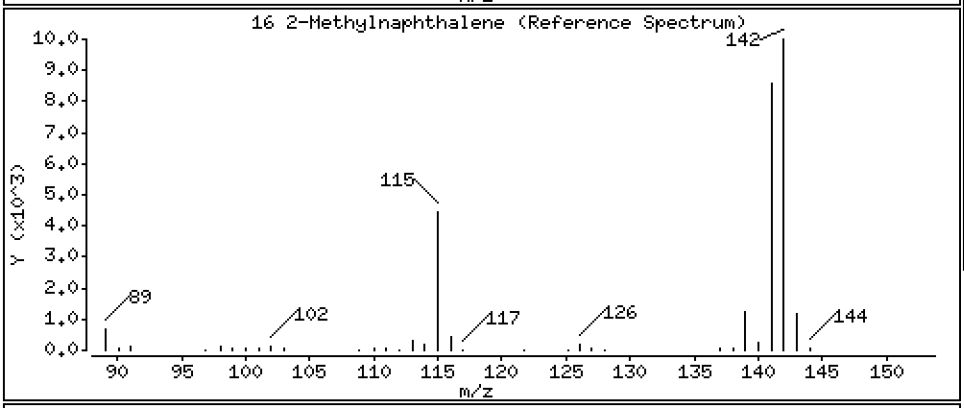
Concentration: 2.186 ug/mL

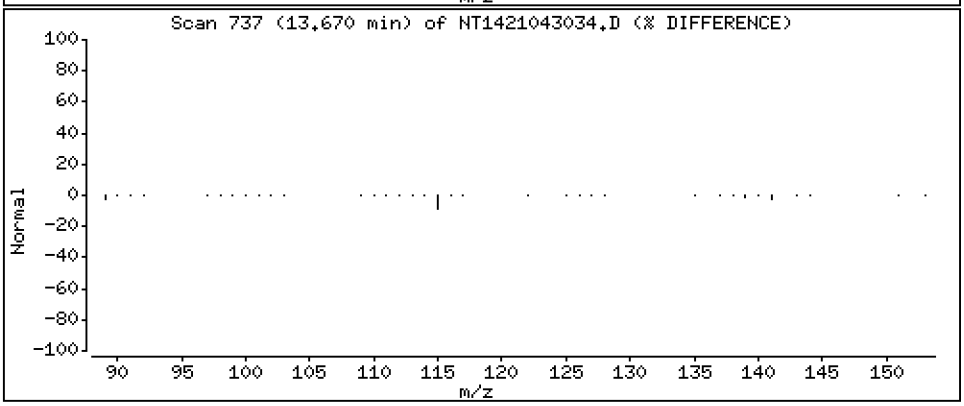












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

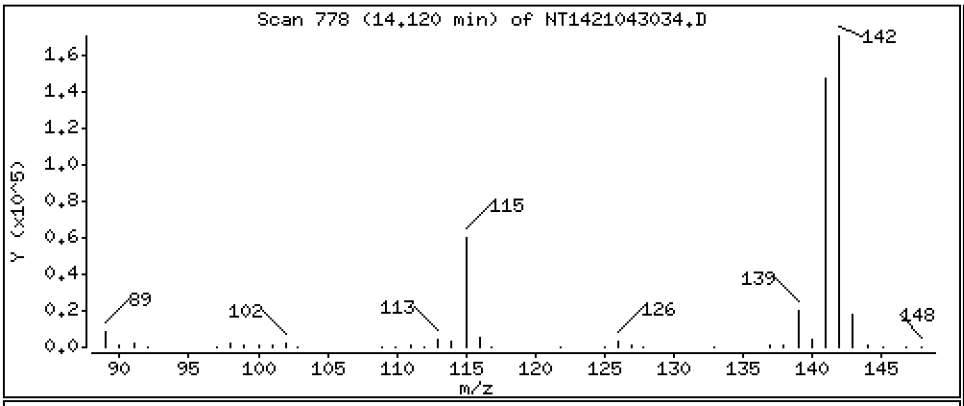
Operator: VTS

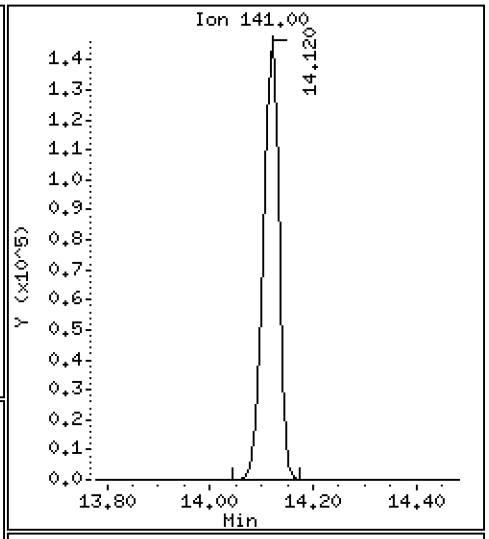
Column phase: Rxi-17Sil MS

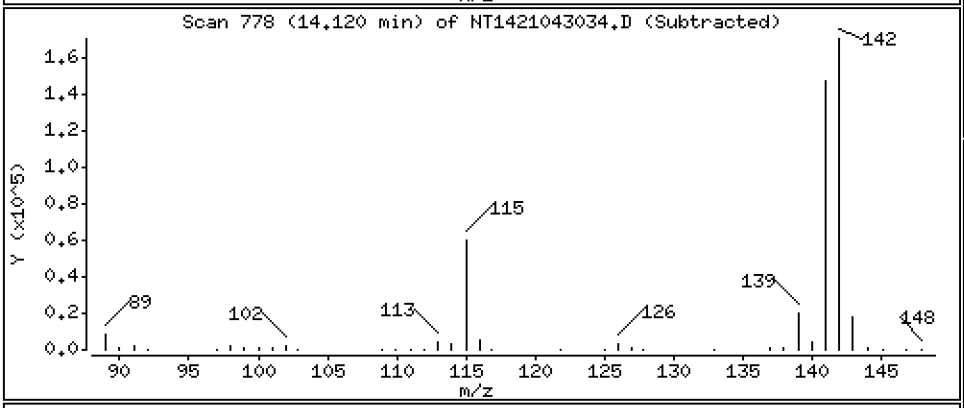
Column diameter: 0.25

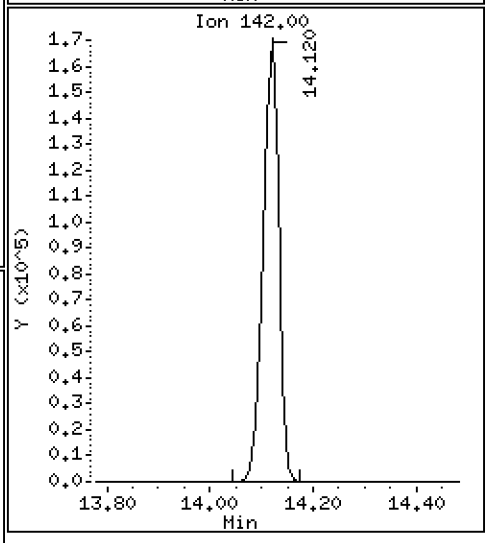
17 1-methylnaphthalene

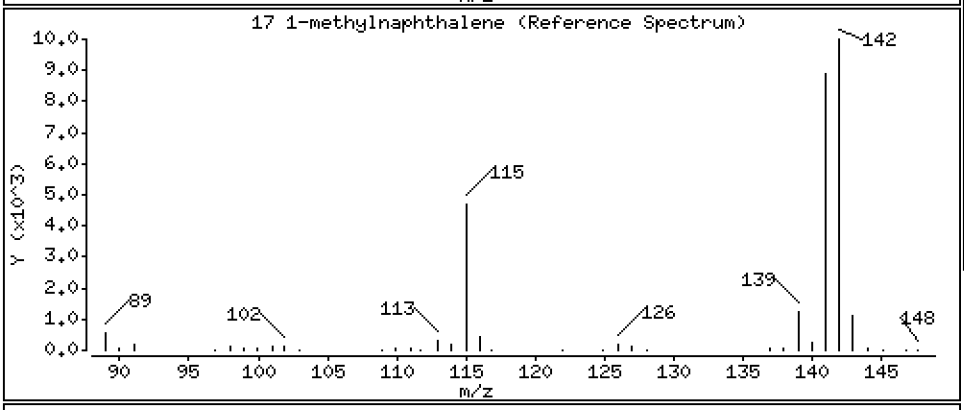
Concentration: 2.168 ug/mL

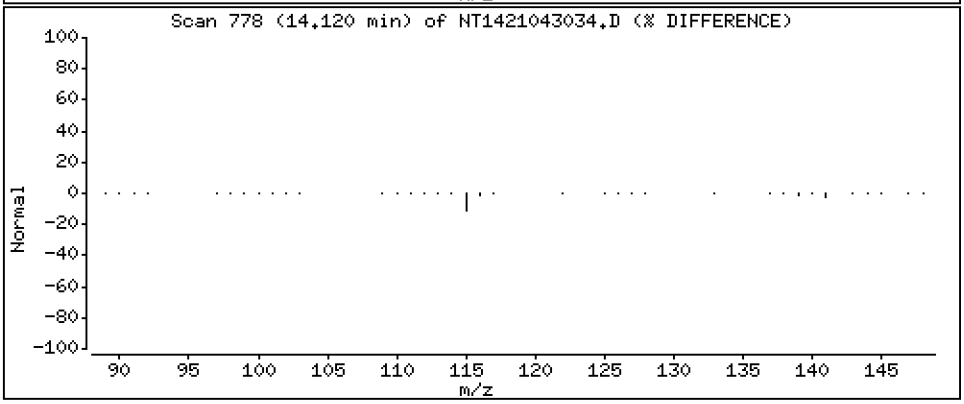












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

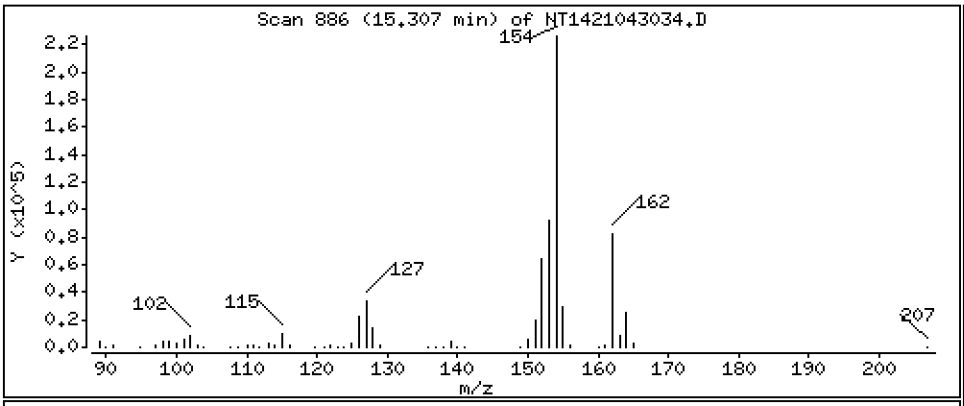
Operator: VTS

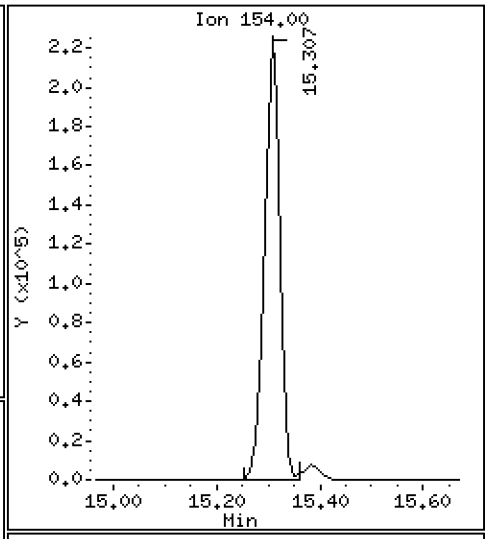
Column phase: Rxi-17Sil MS

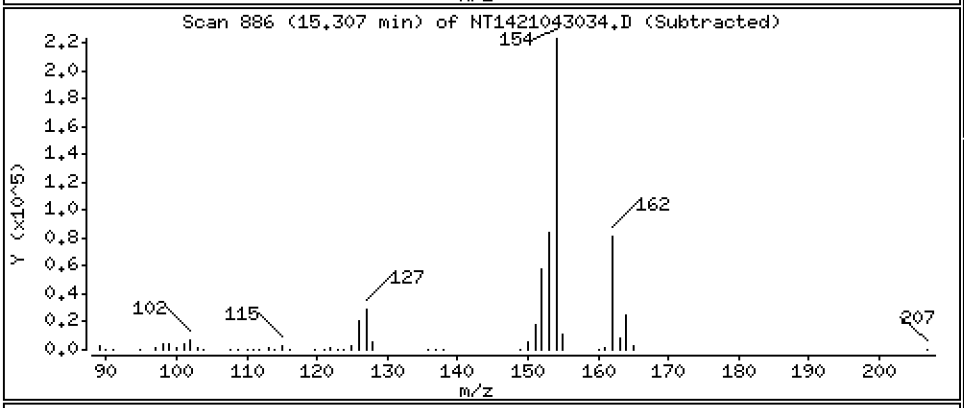
Column diameter: 0.25

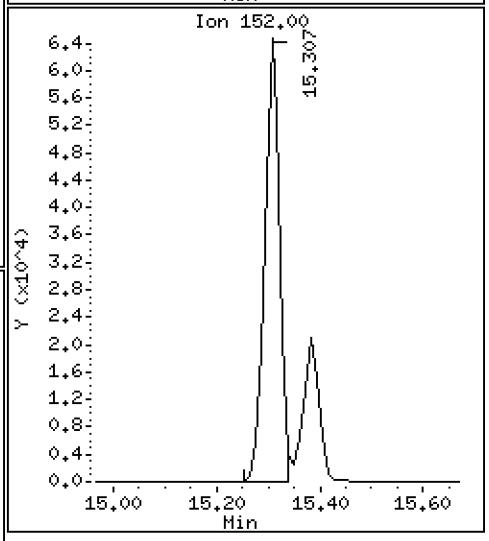
18 Biphenyl

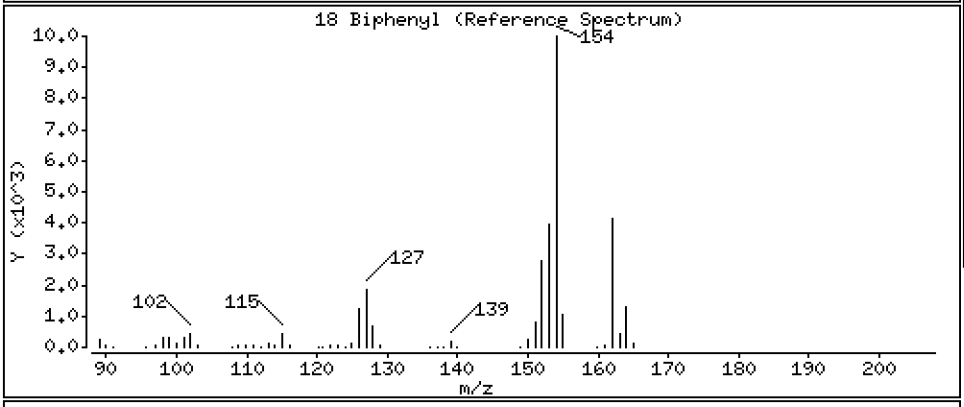
Concentration: 2.229 ug/mL

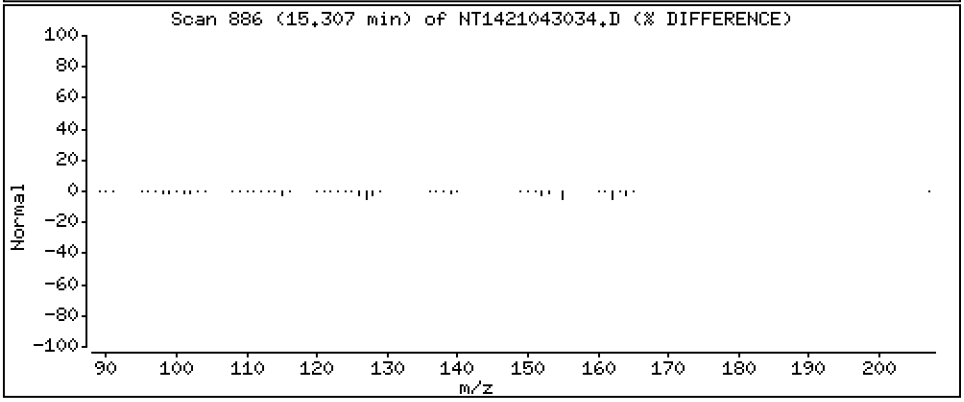












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

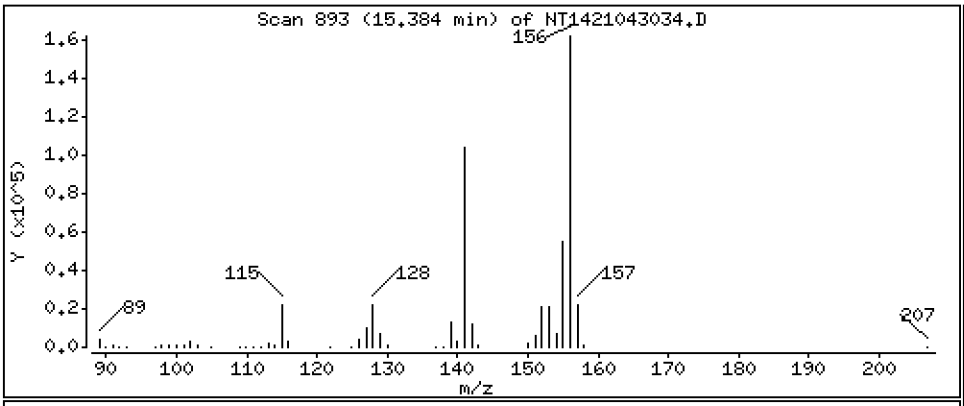
Operator: VTS

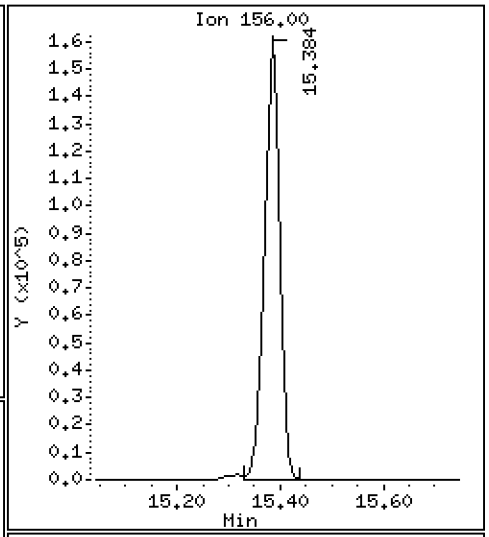
Column phase: Rxi-17Sil MS

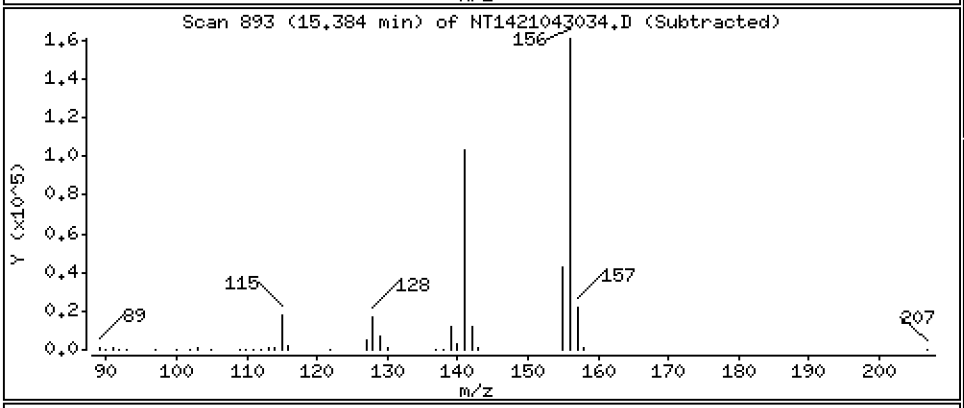
Column diameter: 0.25

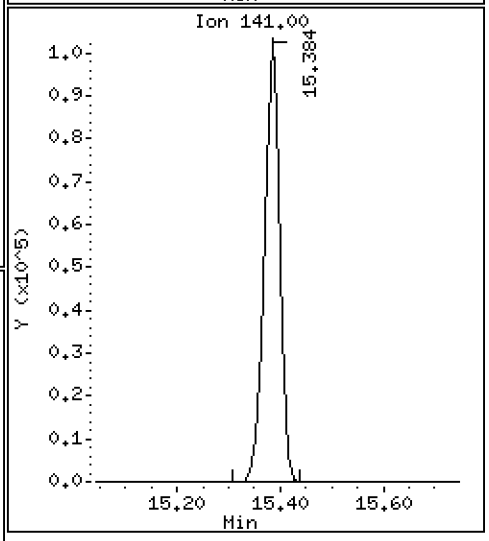
19 2,6-Dimethylnaphthalene

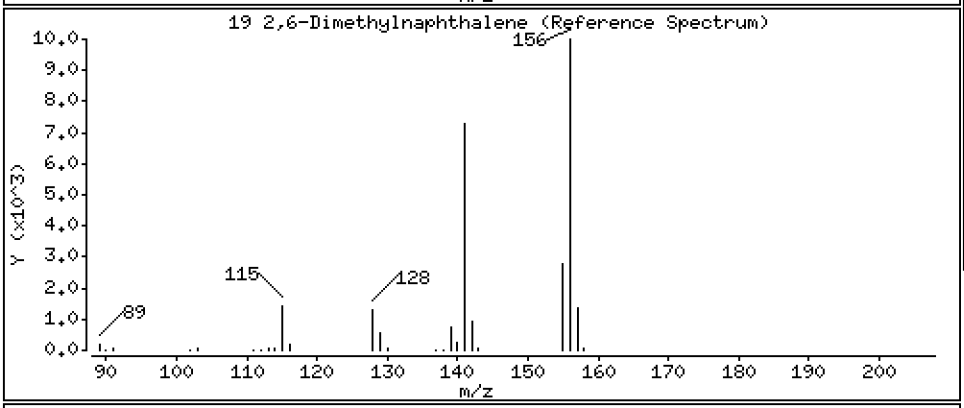
Concentration: 2.293 ug/mL

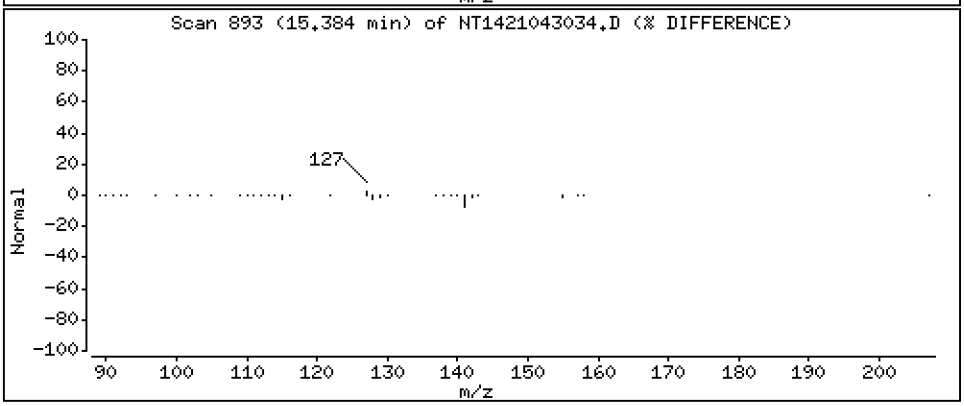












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

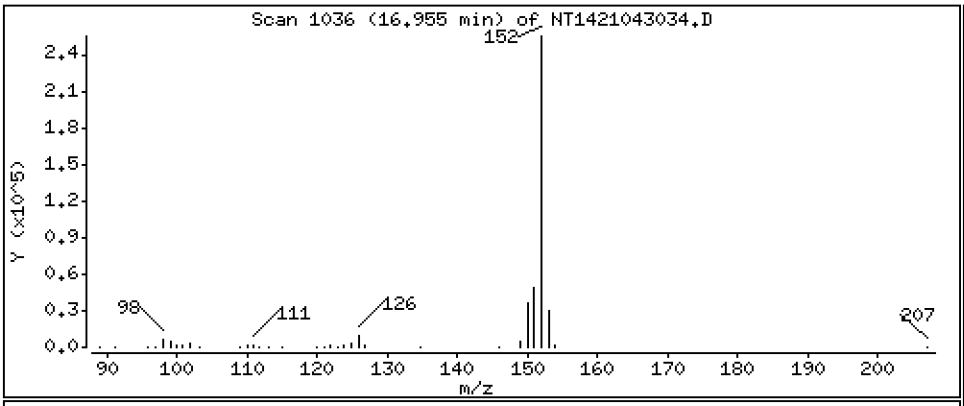
Operator: VTS

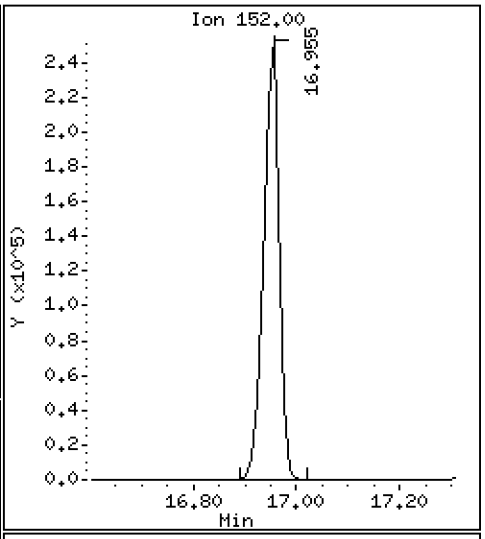
Column phase: Rxi-17Sil MS

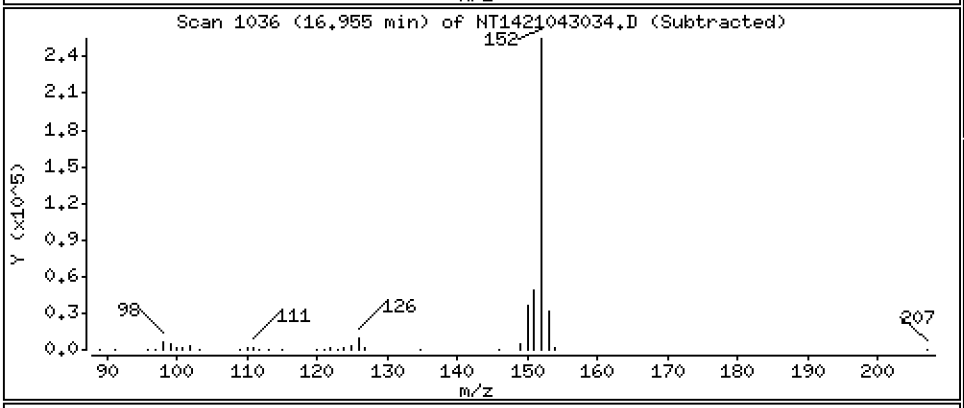
Column diameter: 0.25

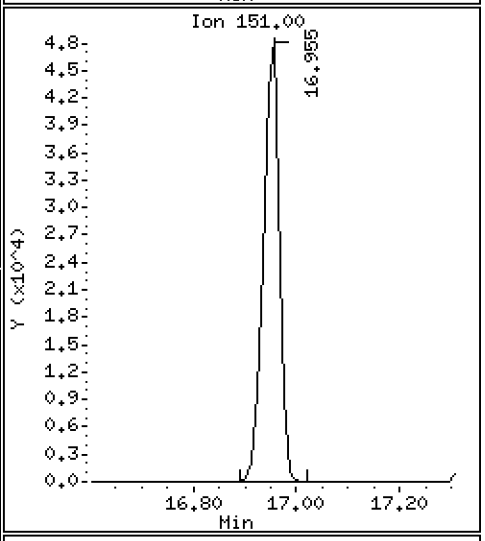
20 Acenaphthylene

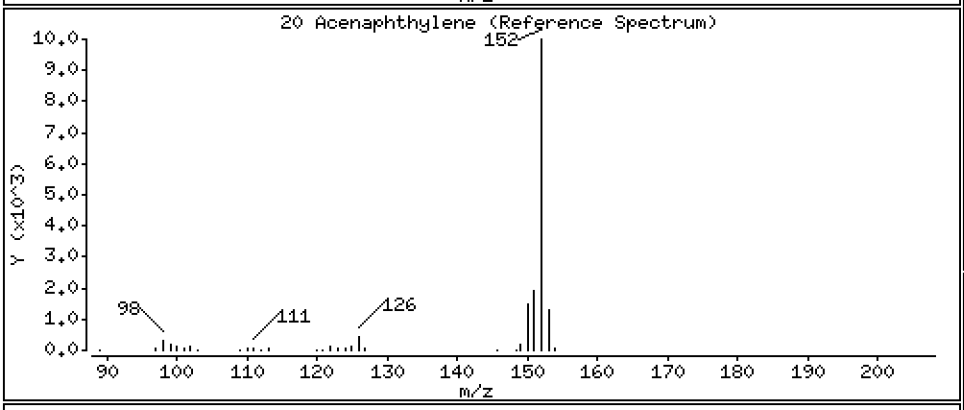
Concentration: 2.309 ug/mL

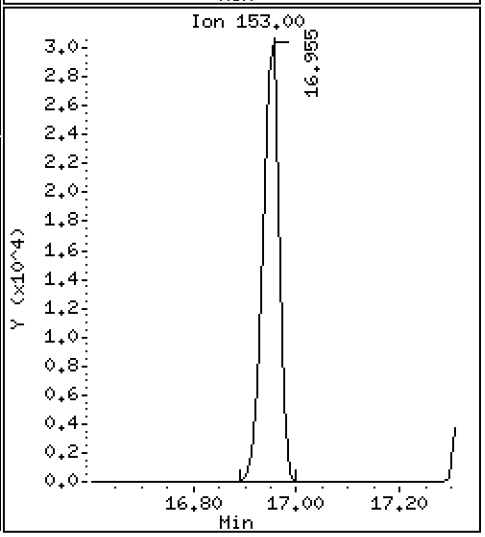


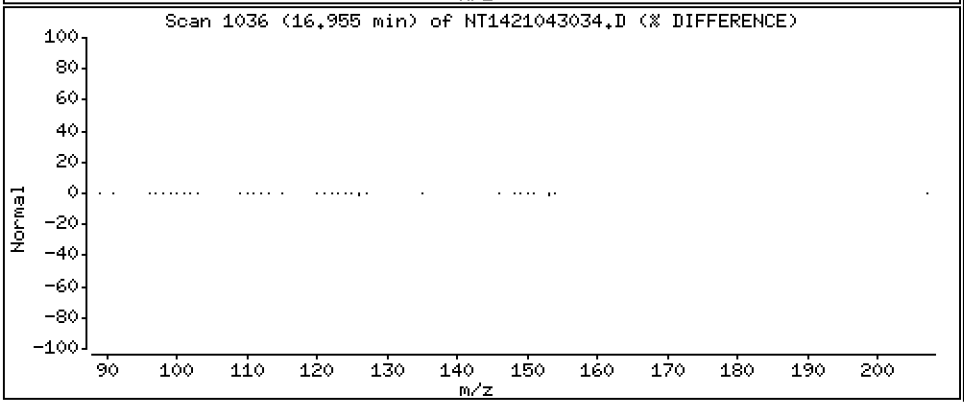












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

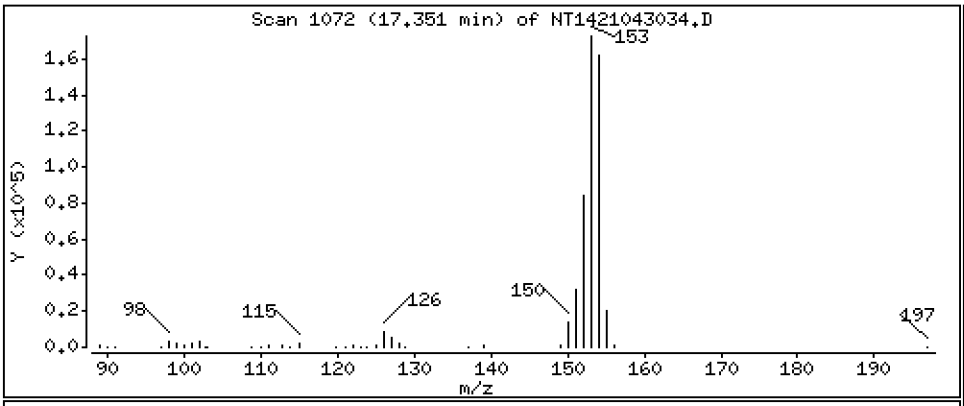
Operator: VTS

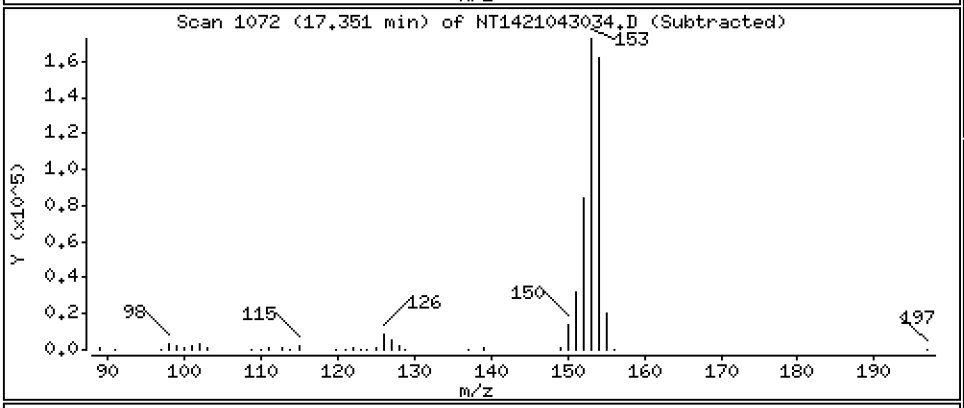
Column phase: Rxi-17Sil MS

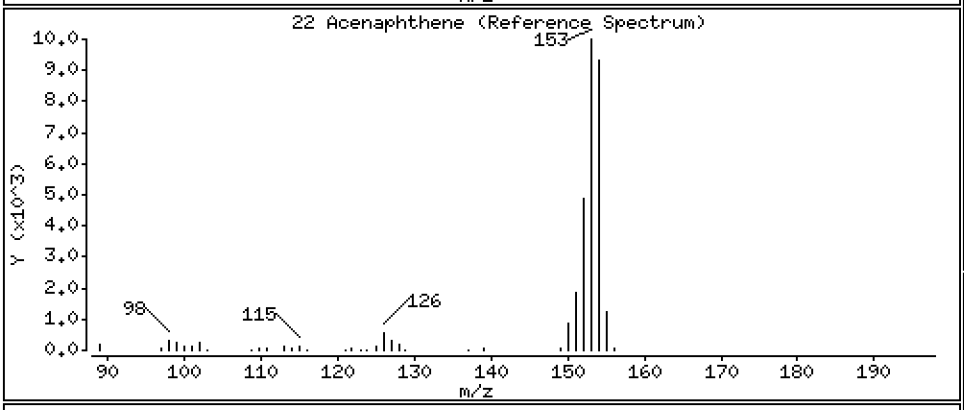
Column diameter: 0.25

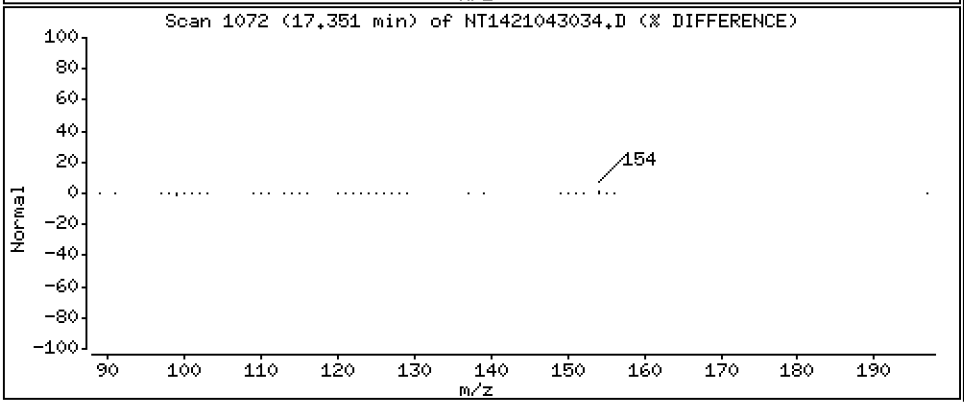
22 Acenaphthene

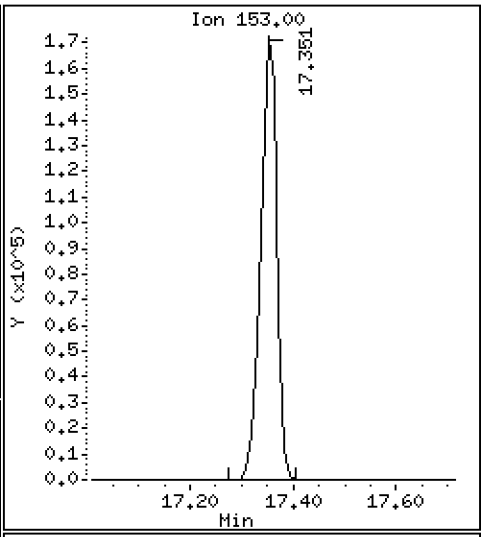
Concentration: 2.495 ug/mL

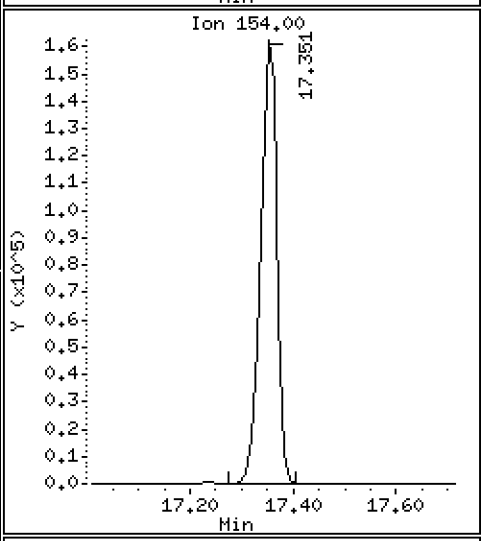


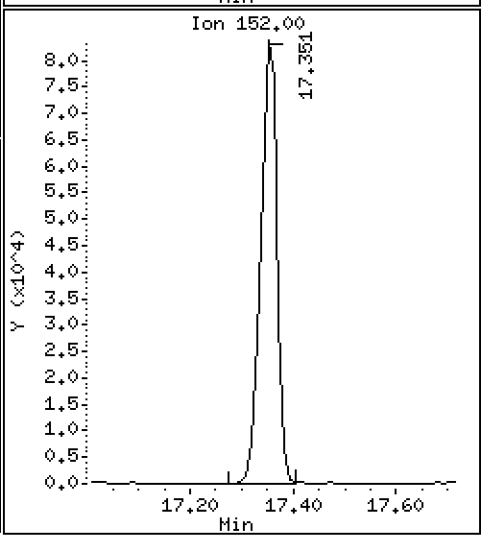












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

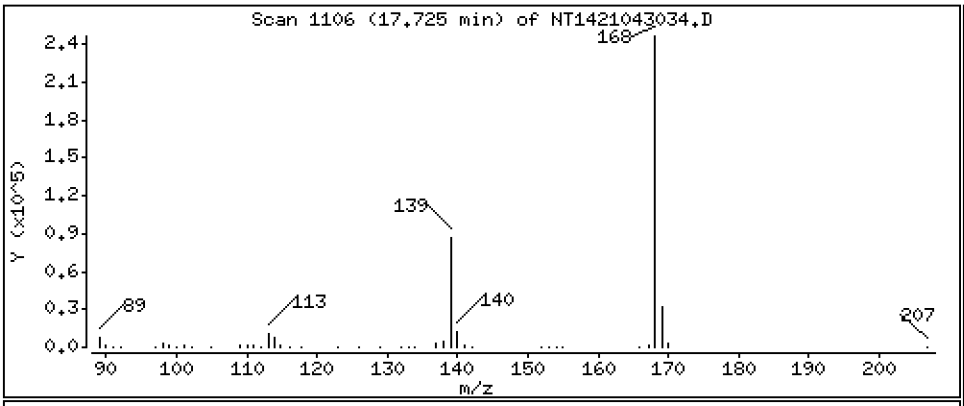
Operator: VTS

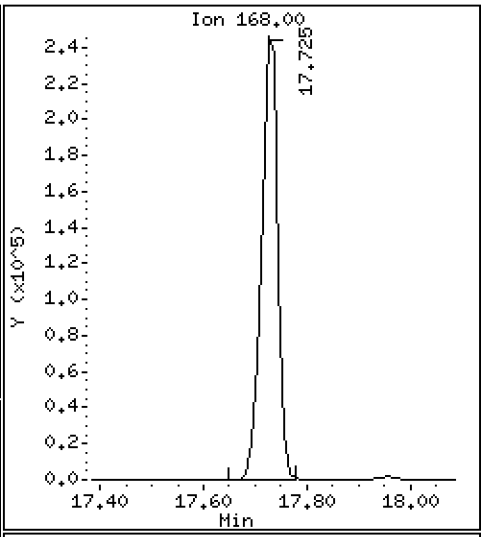
Column phase: Rxi-17Sil MS

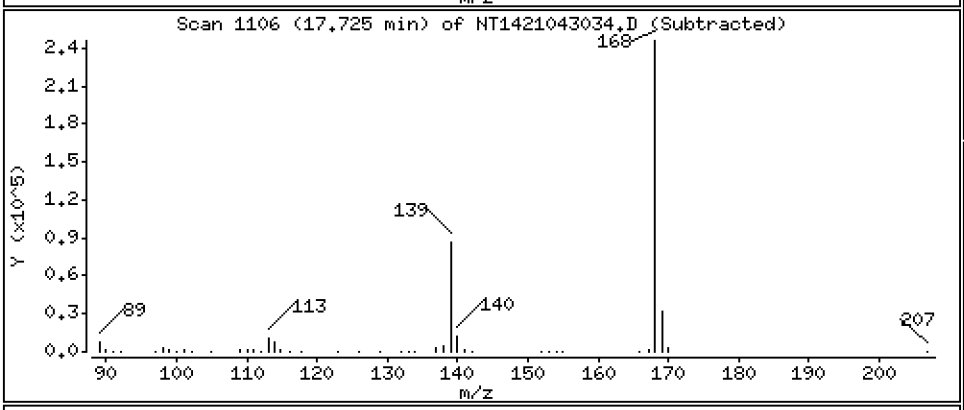
Column diameter: 0.25

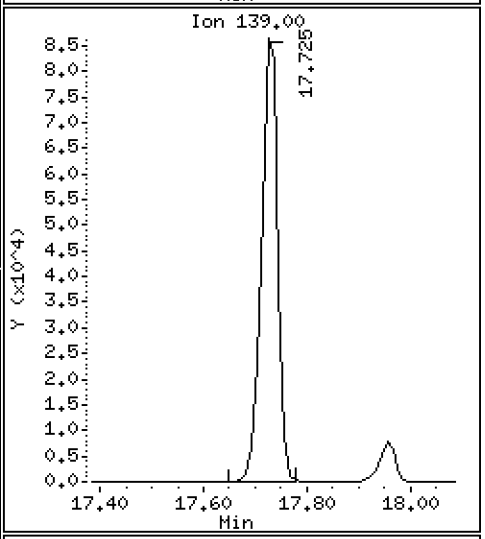
23 Dibenzofuran

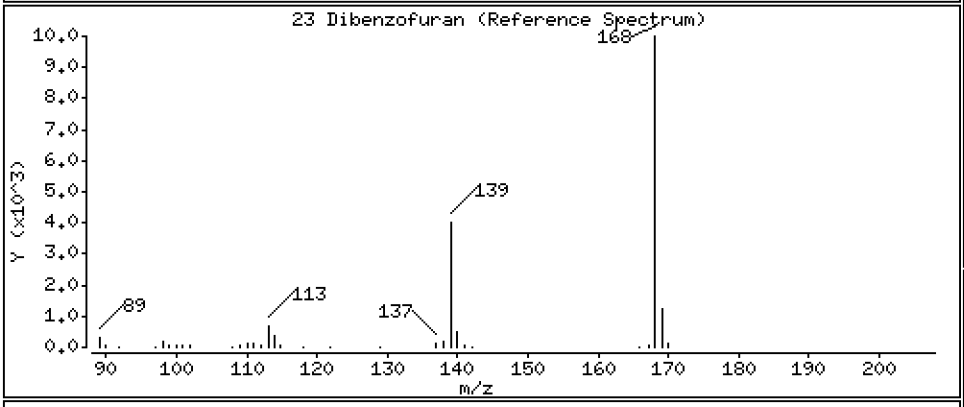
Concentration: 2.386 ug/mL

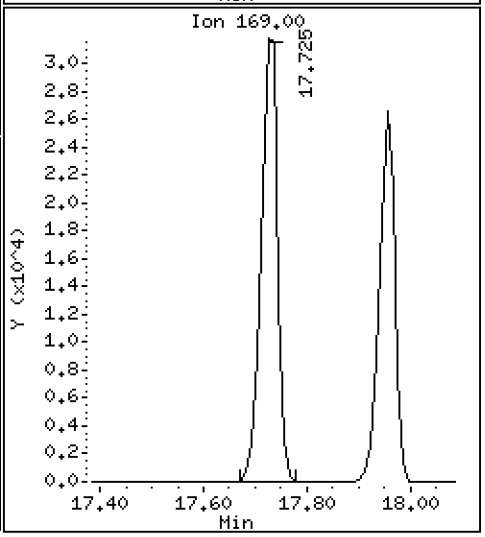


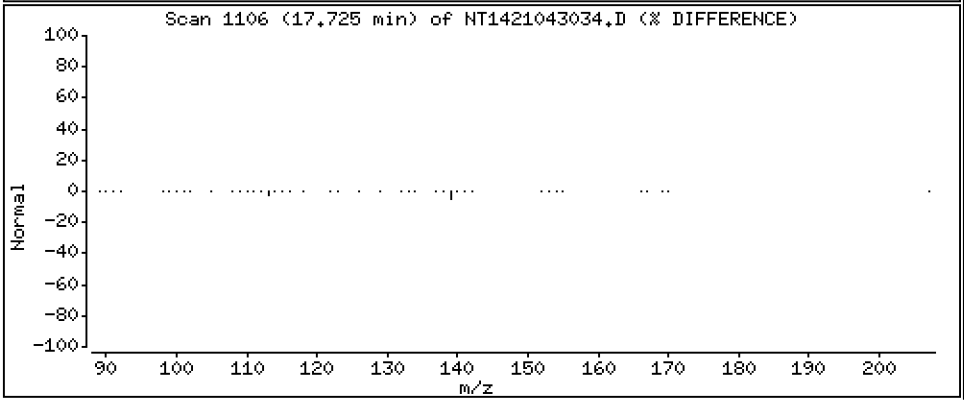












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

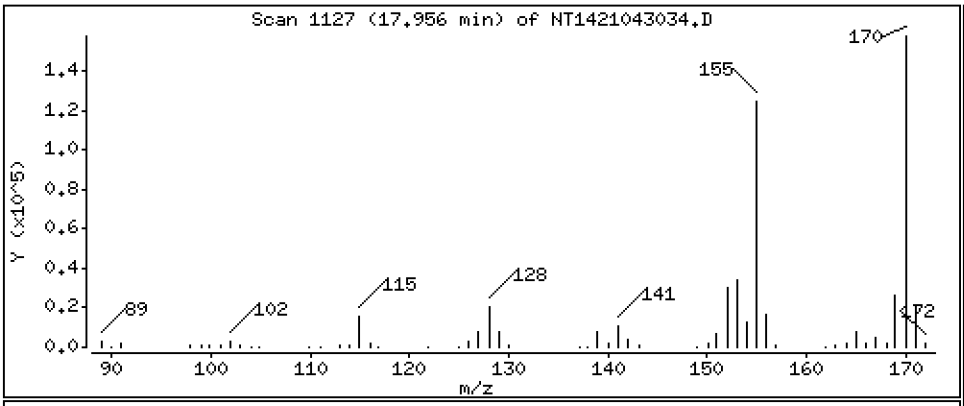
Operator: VTS

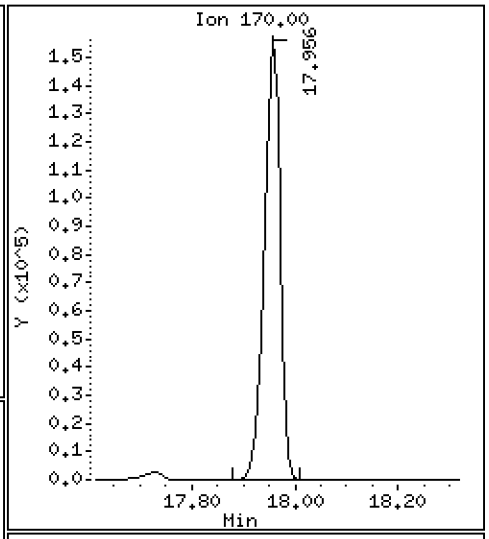
Column phase: Rxi-17Sil MS

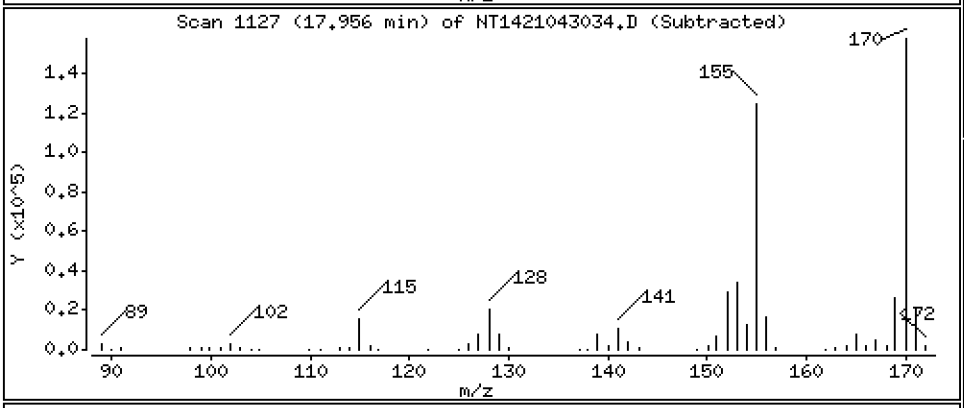
Column diameter: 0.25

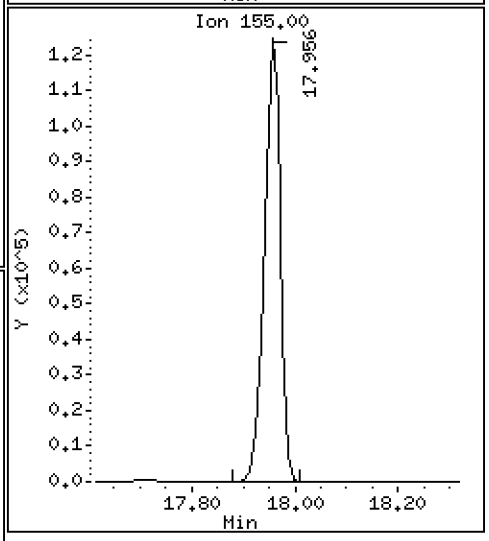
24 1,6,7-Trimethylnaphthalene

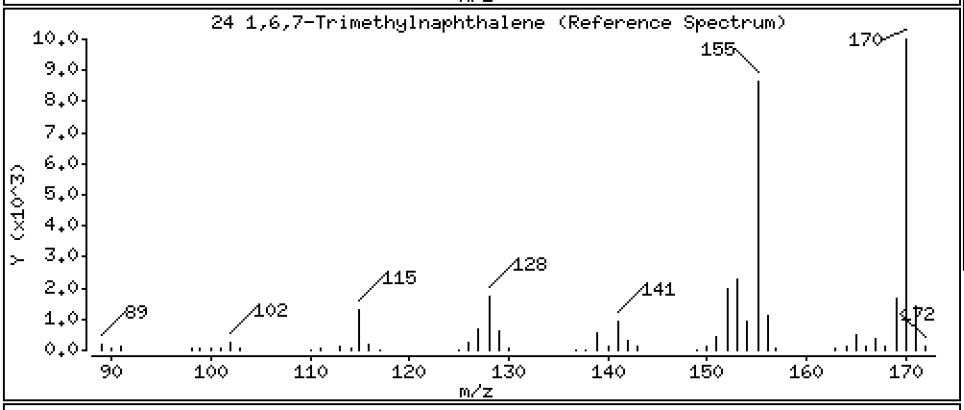
Concentration: 2.567 ug/mL

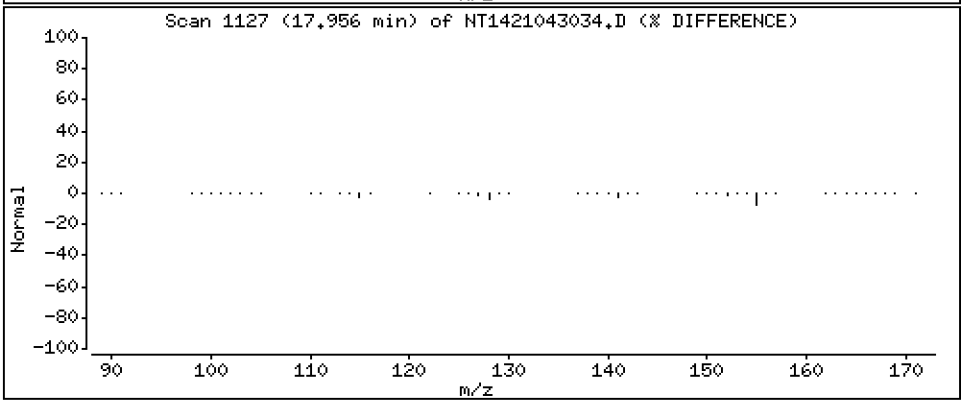












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

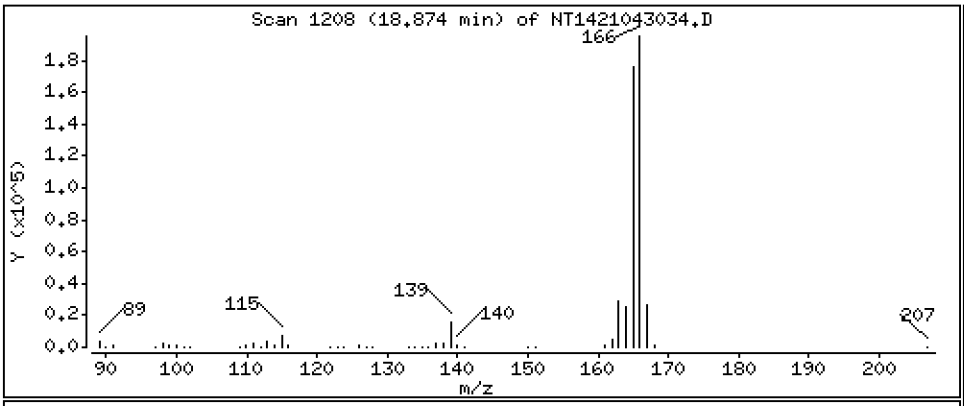
Operator: VTS

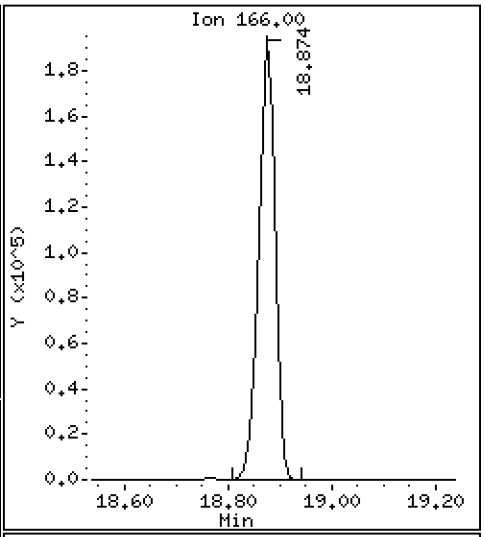
Column phase: Rxi-17Sil MS

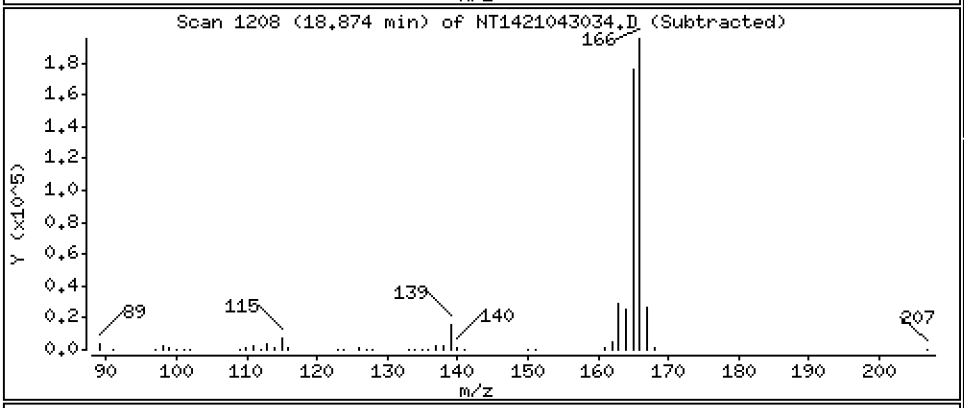
Column diameter: 0.25

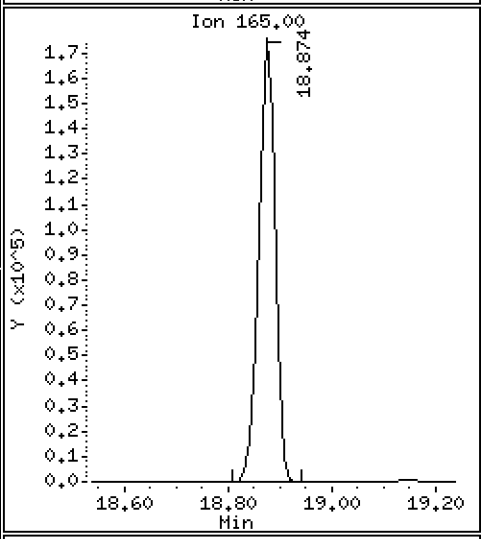
26 Fluorene

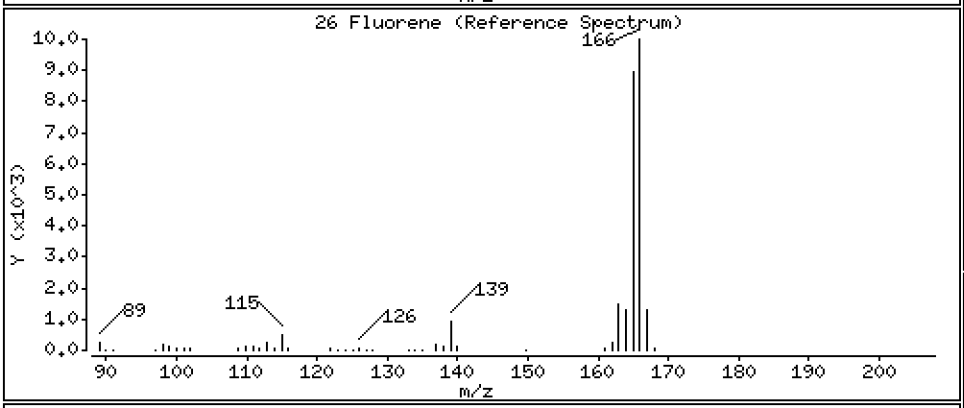
Concentration: 2.531 ug/mL

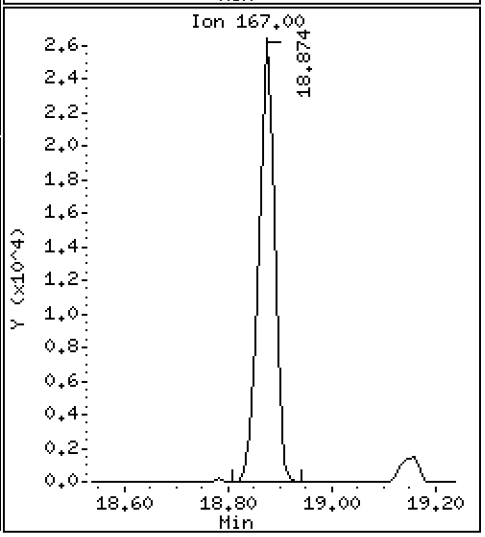


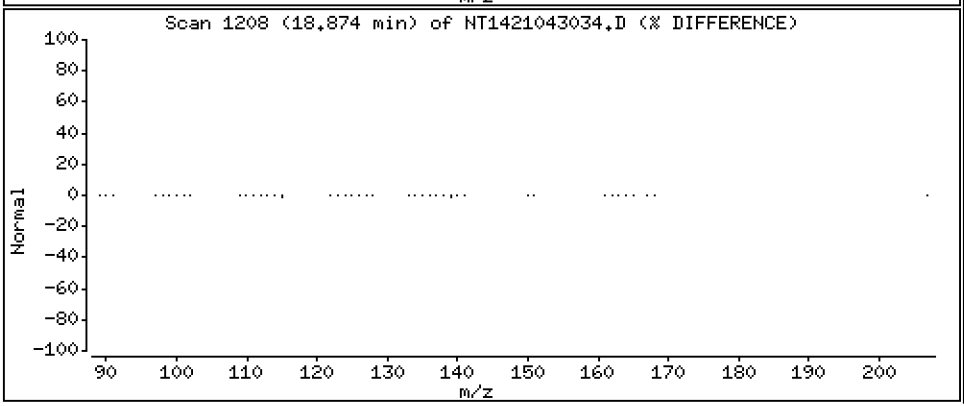












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

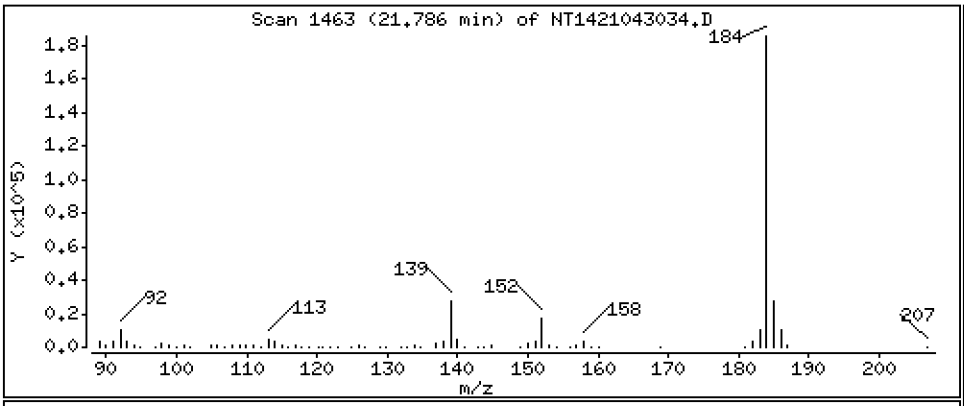
Operator: VTS

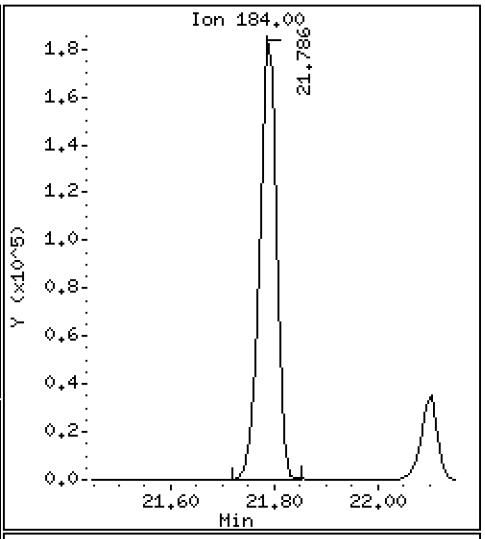
Column phase: Rxi-17Sil MS

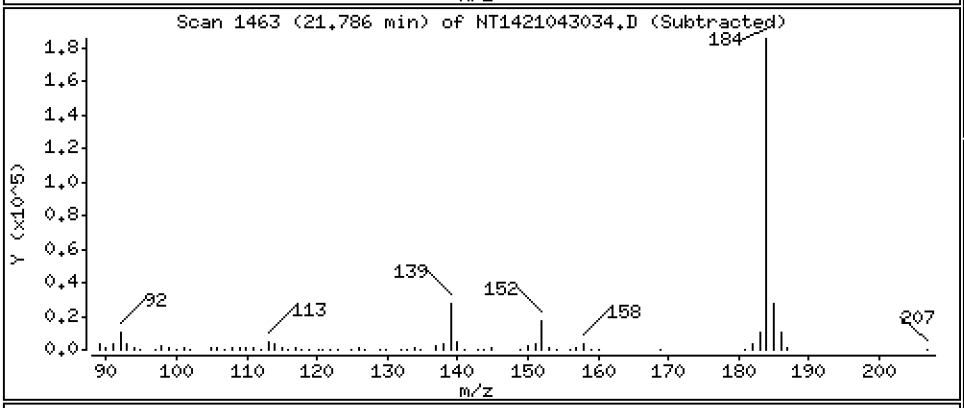
Column diameter: 0.25

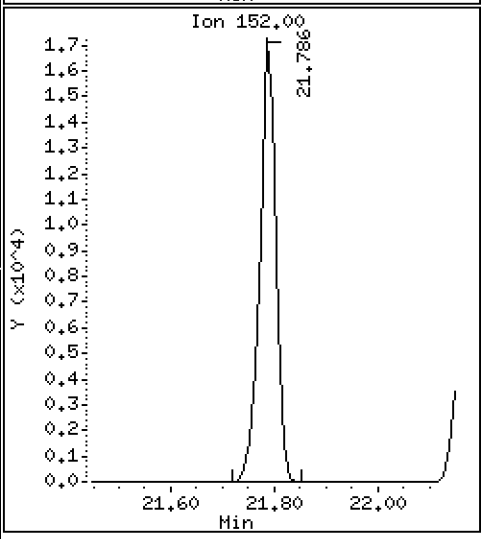
30 Dibenzothiophene

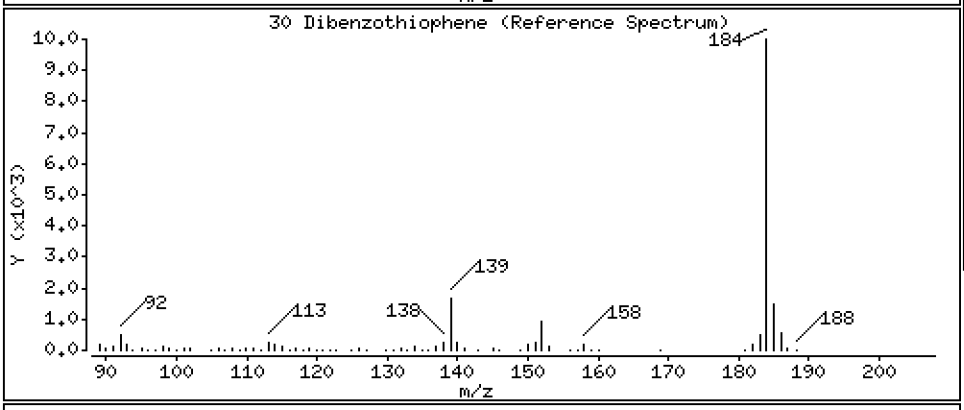
Concentration: 1.907 ug/mL

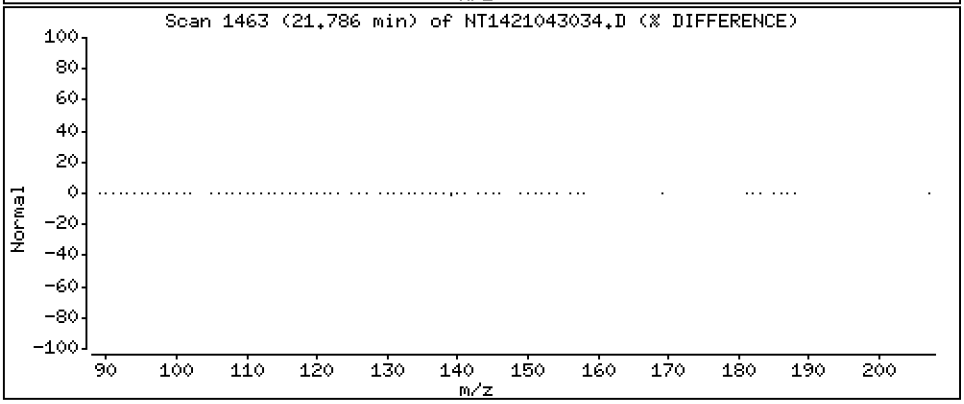












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

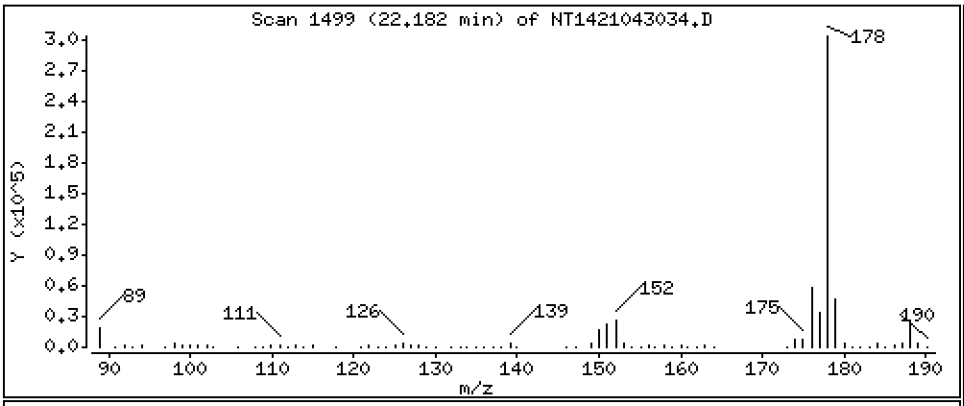
Operator: VTS

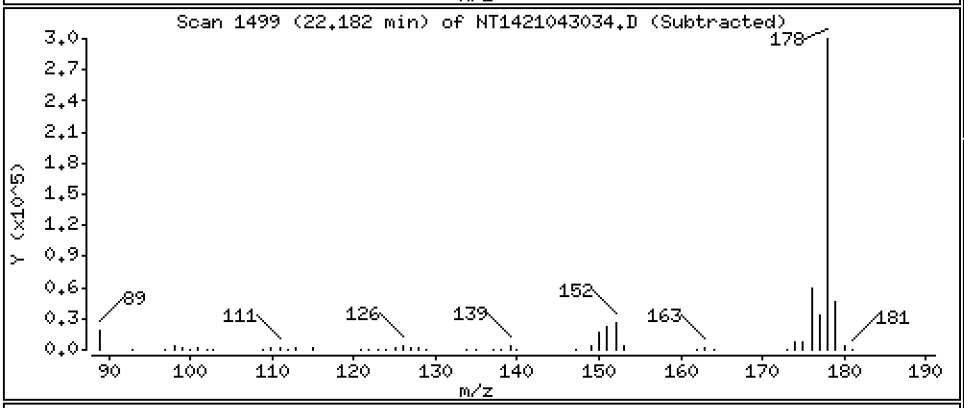
Column phase: Rxi-17Sil MS

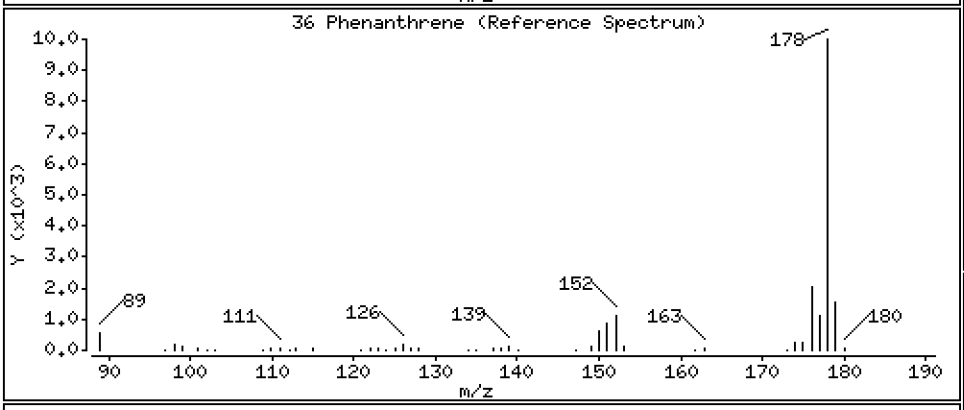
Column diameter: 0.25

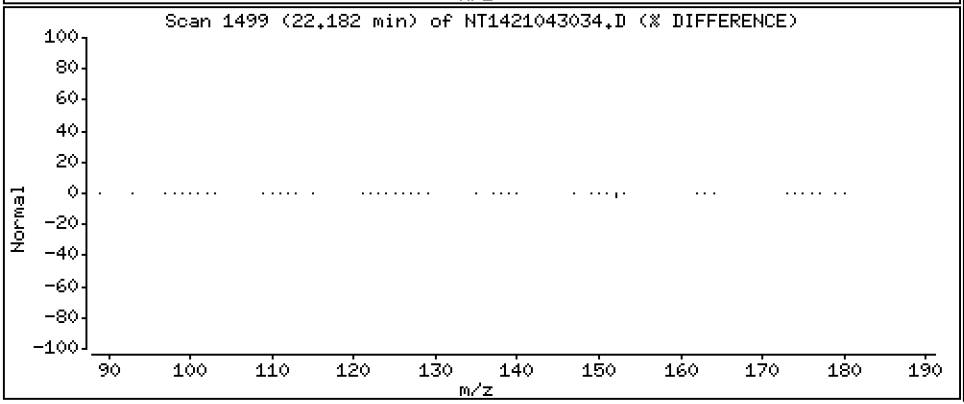
36 Phenanthrene

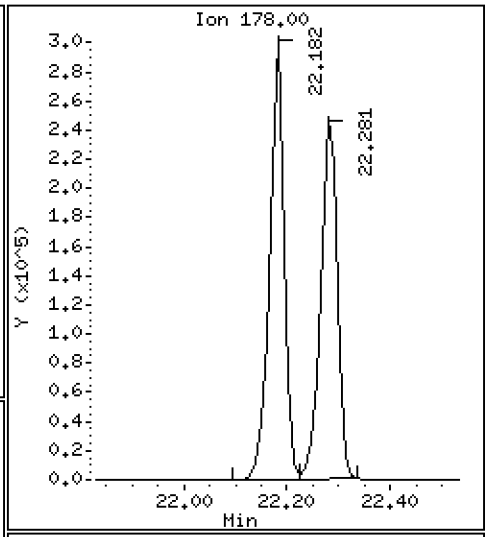
Concentration: 2.307 ug/mL

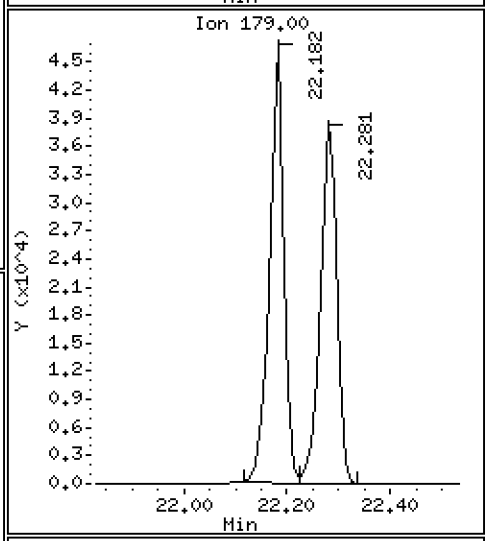


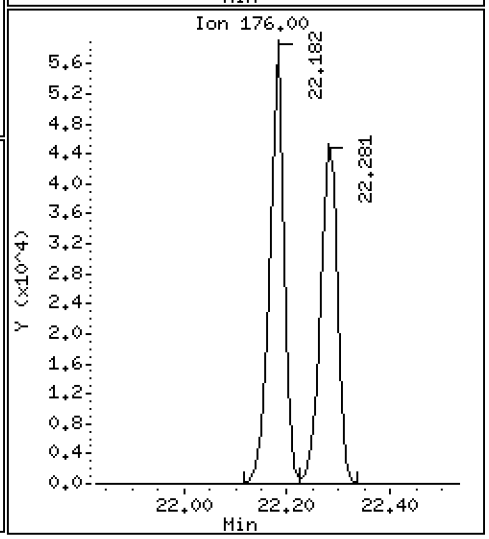












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

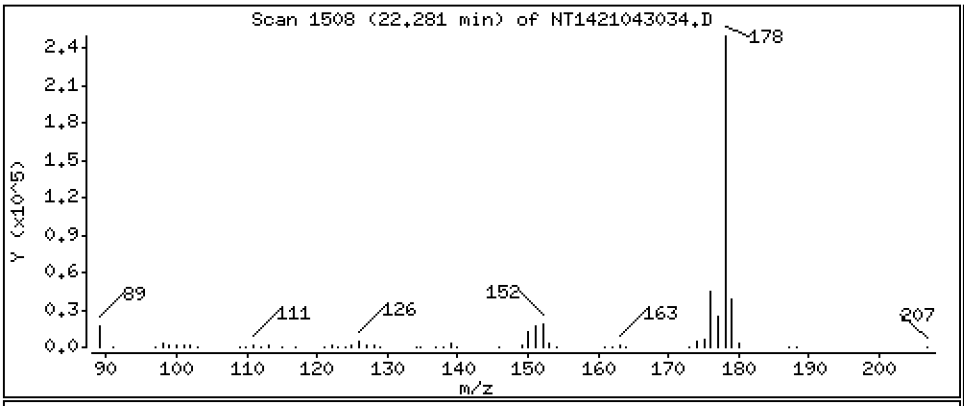
Operator: VTS

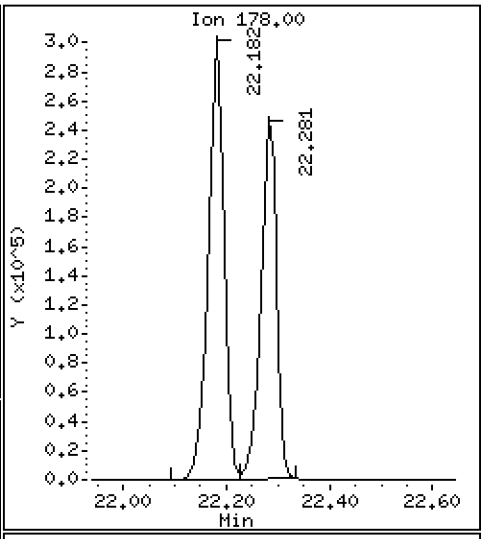
Column phase: Rxi-17Sil MS

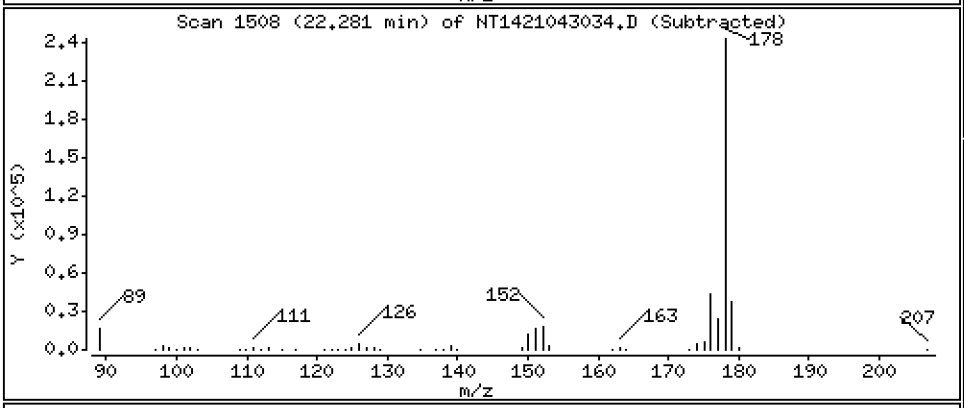
Column diameter: 0.25

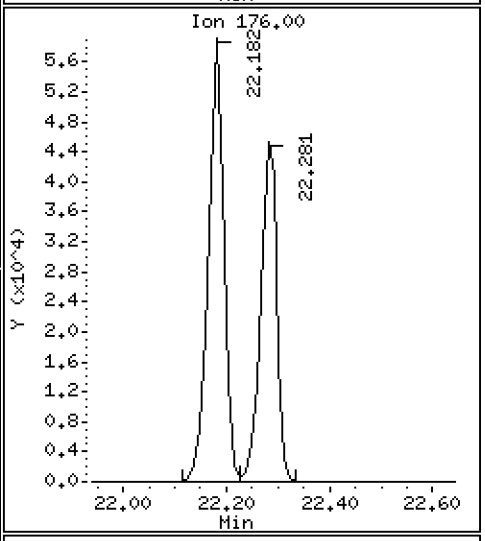
37 Anthracene

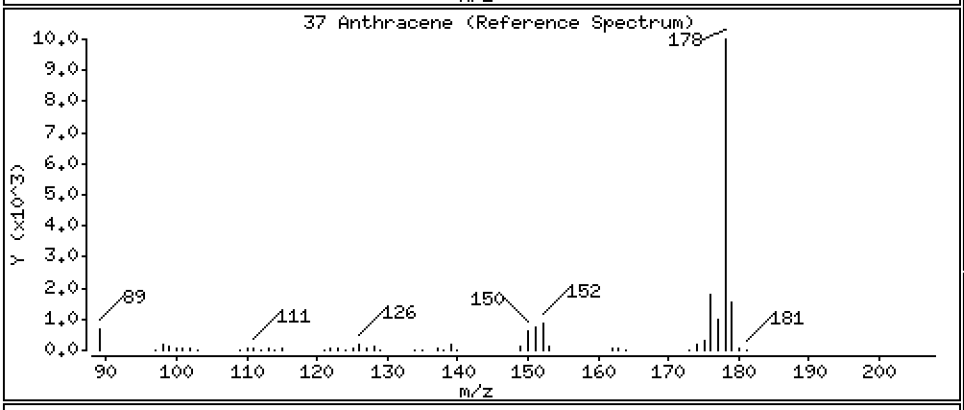
Concentration: 2.163 ug/mL

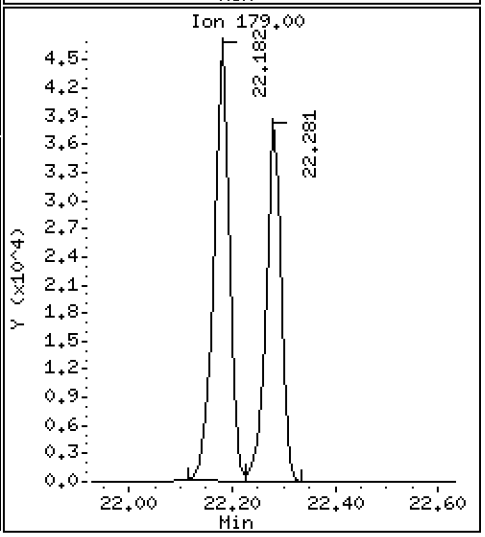


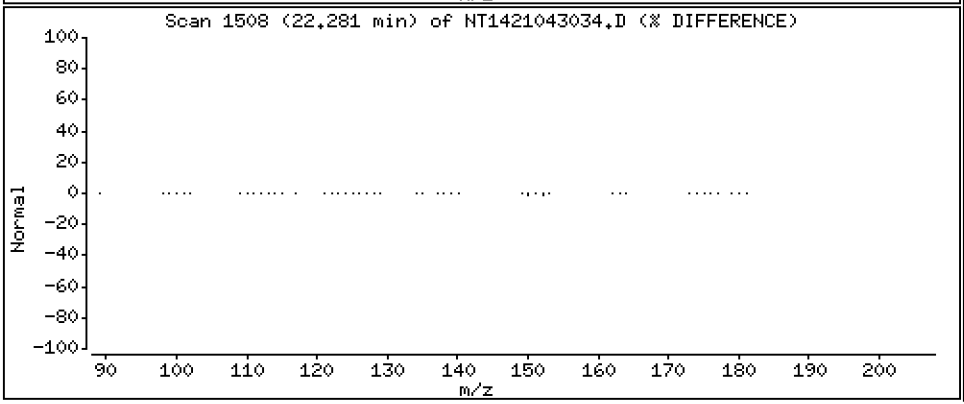












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

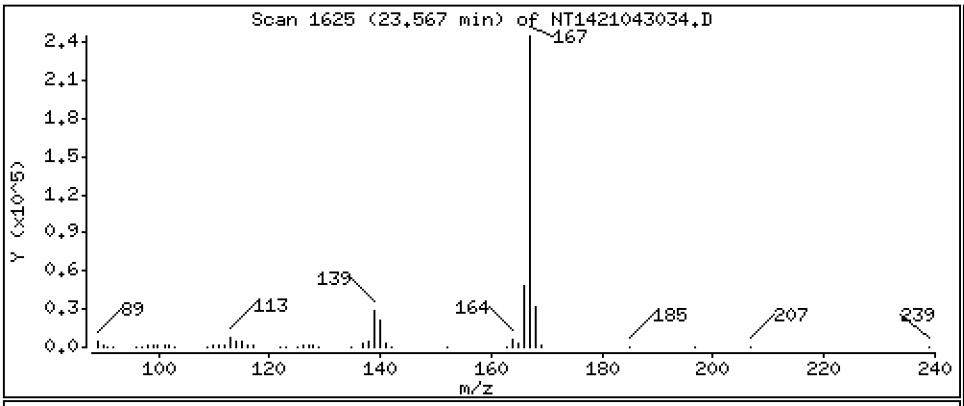
Operator: VTS

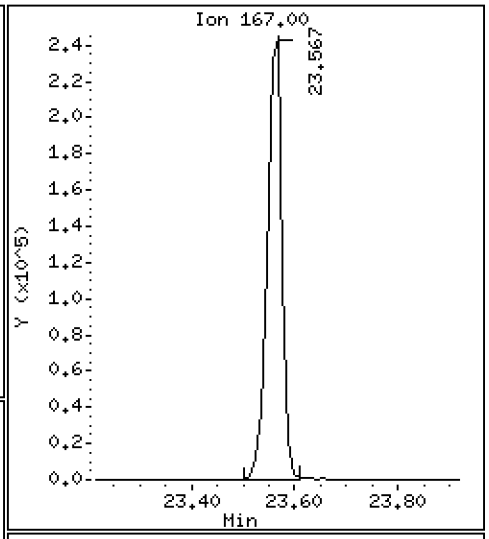
Column phase: Rxi-17Sil MS

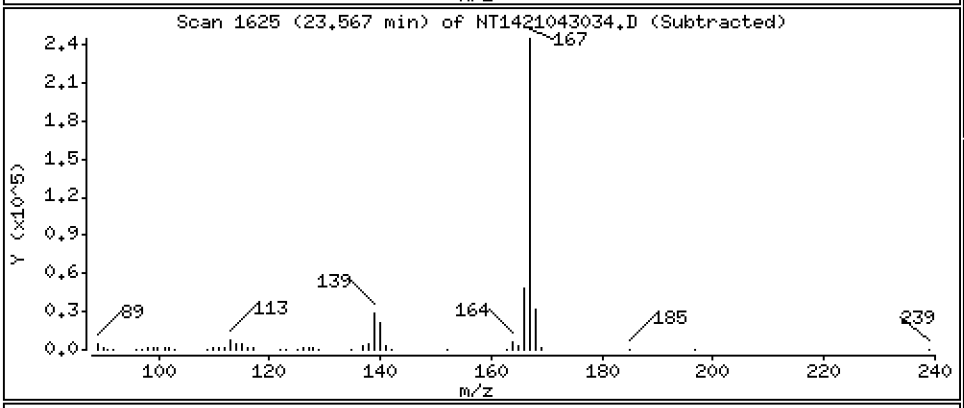
Column diameter: 0.25

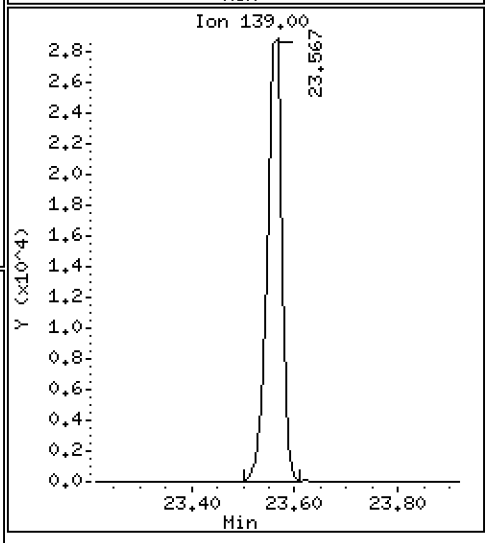
42 Carbazole

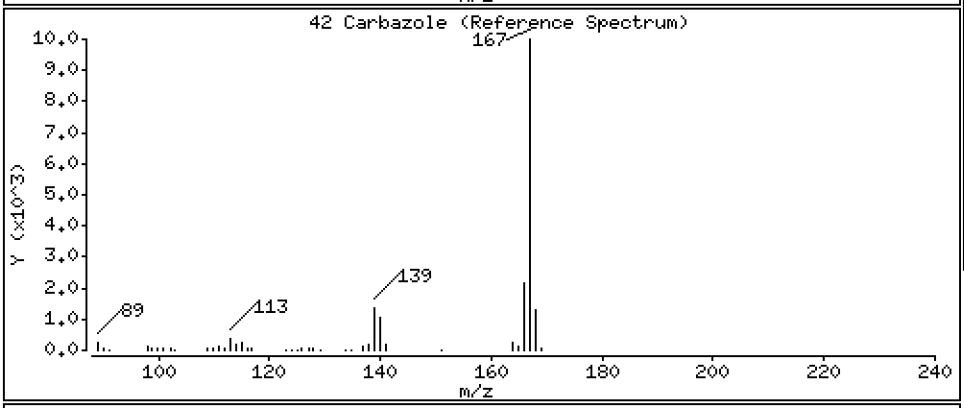
Concentration: 2.429 ug/mL

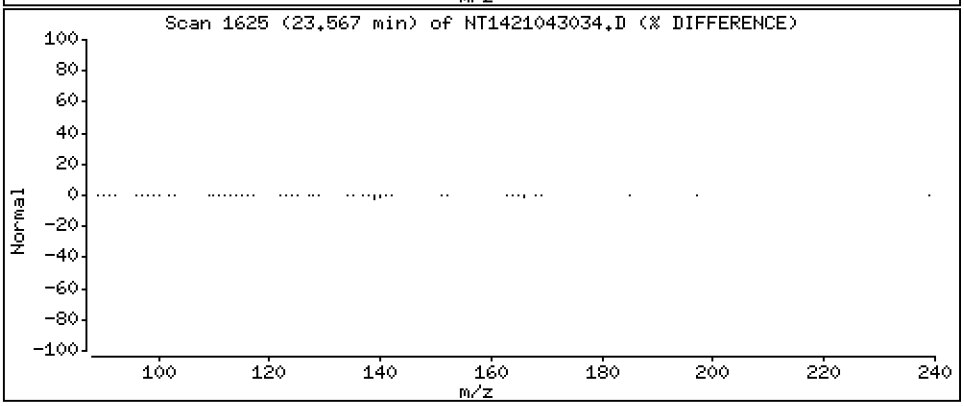












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

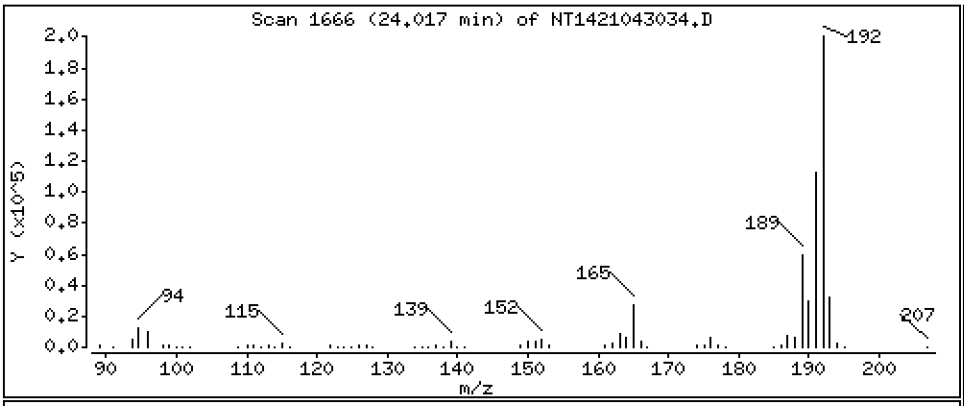
Operator: VTS

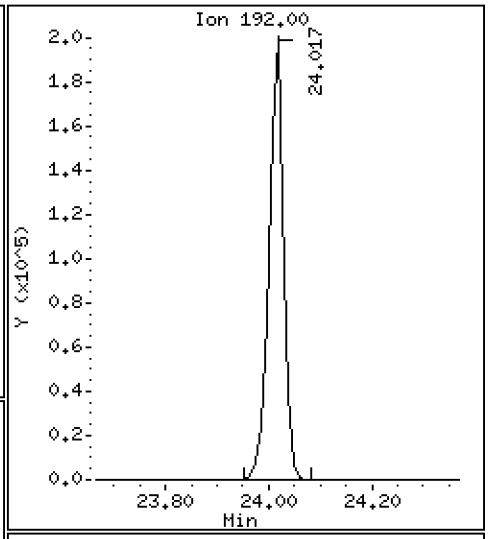
Column phase: Rxi-17Sil MS

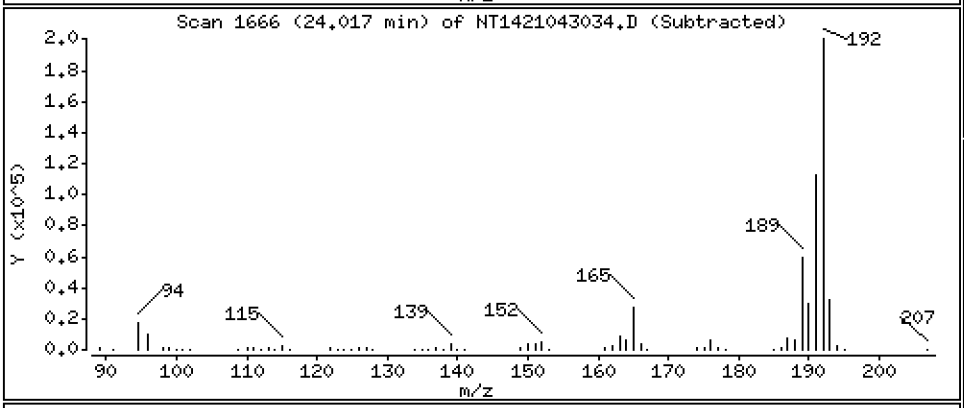
Column diameter: 0.25

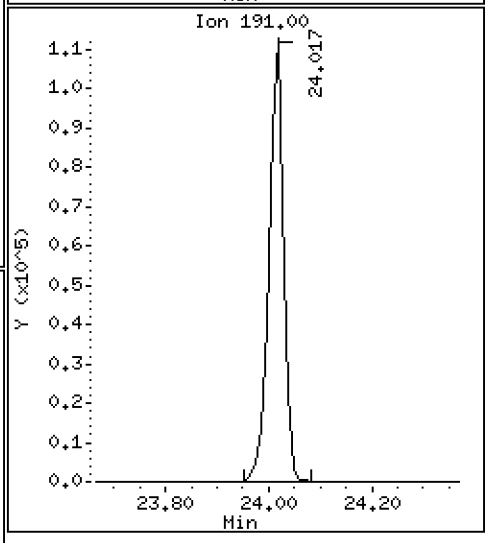
43 1-Methylphenanthrene

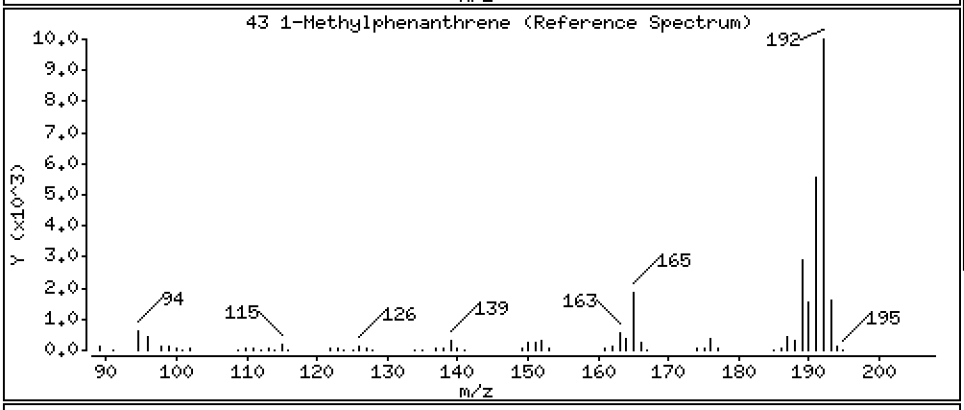
Concentration: 2.517 ug/mL

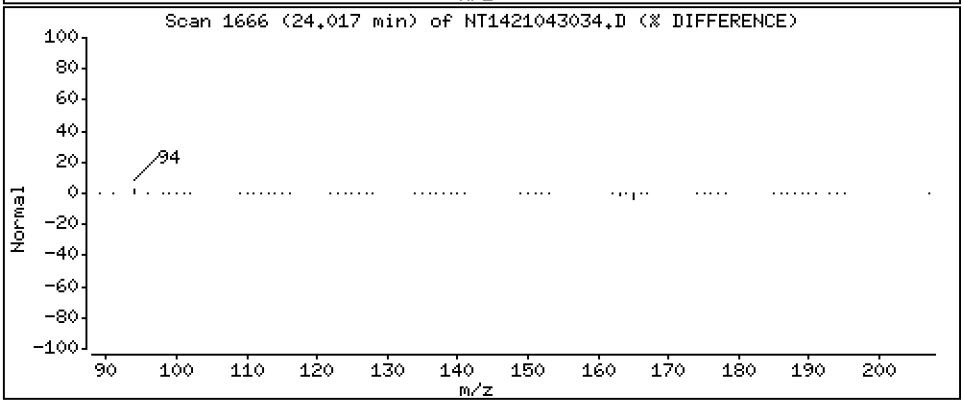












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

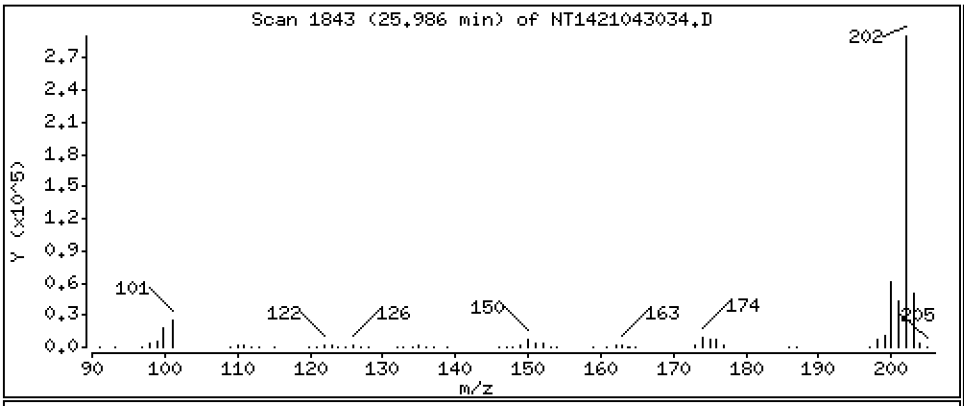
Operator: VTS

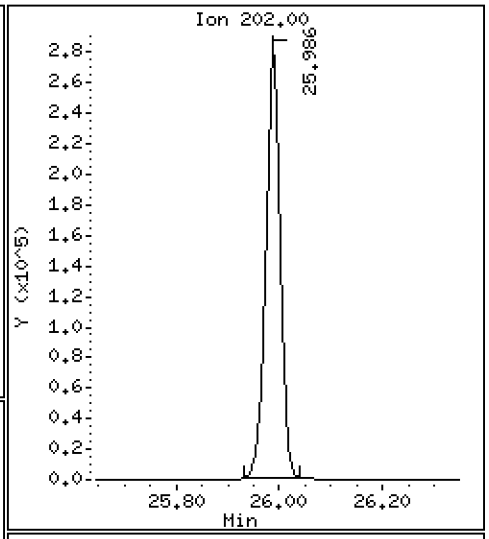
Column phase: Rxi-17Sil MS

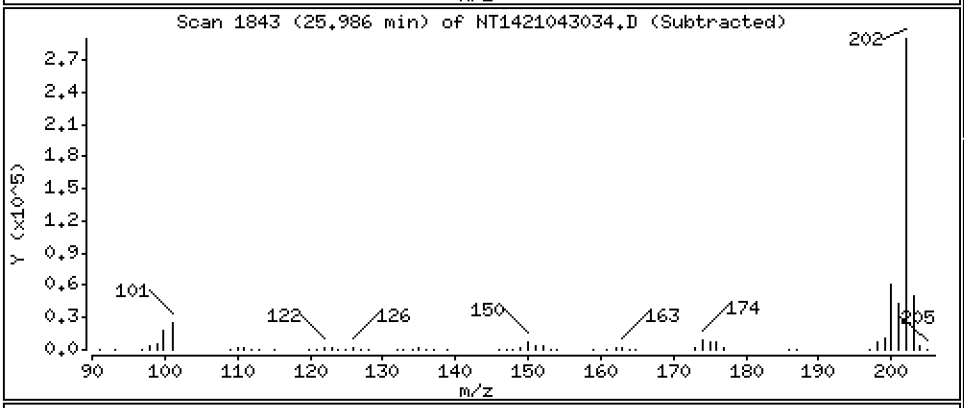
Column diameter: 0.25

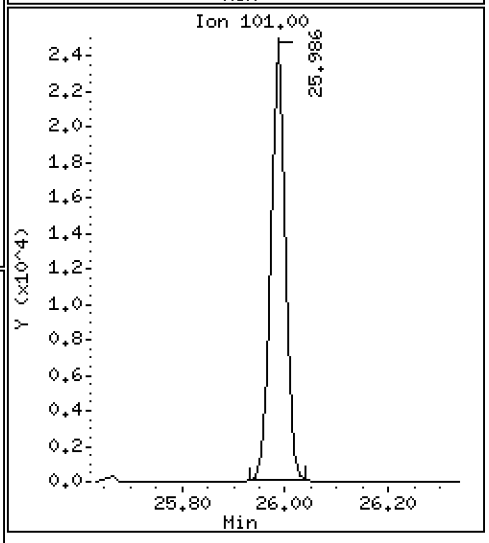
44 Fluoranthene

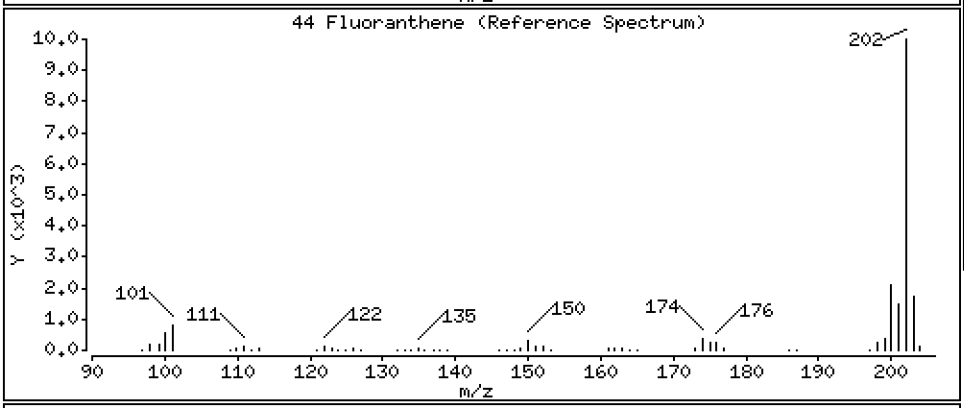
Concentration: 2.463 ug/mL

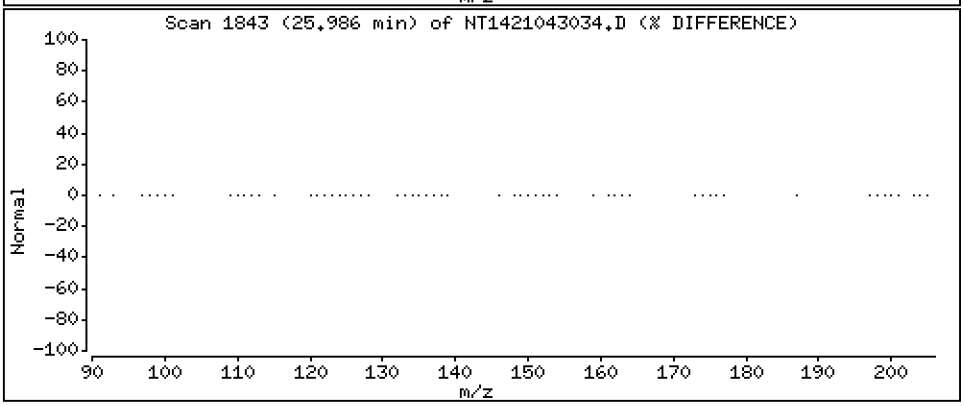












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

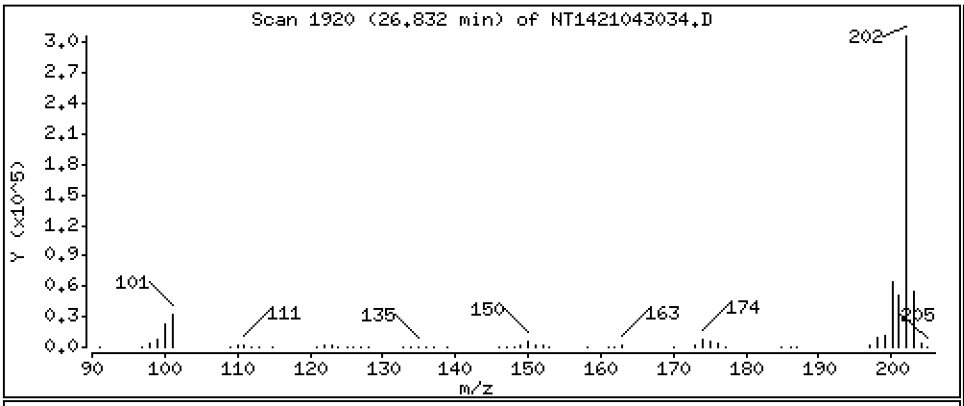
Operator: VTS

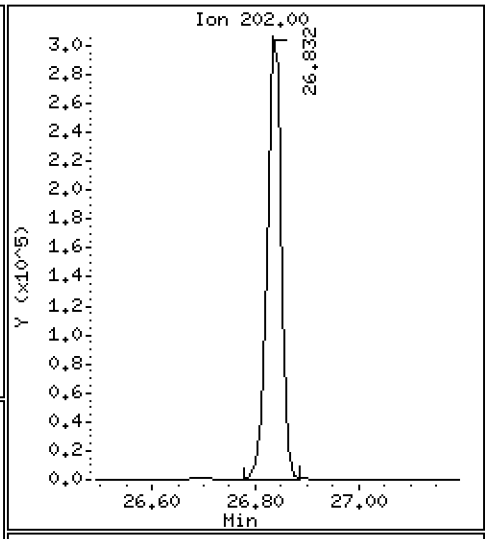
Column phase: Rxi-17Sil MS

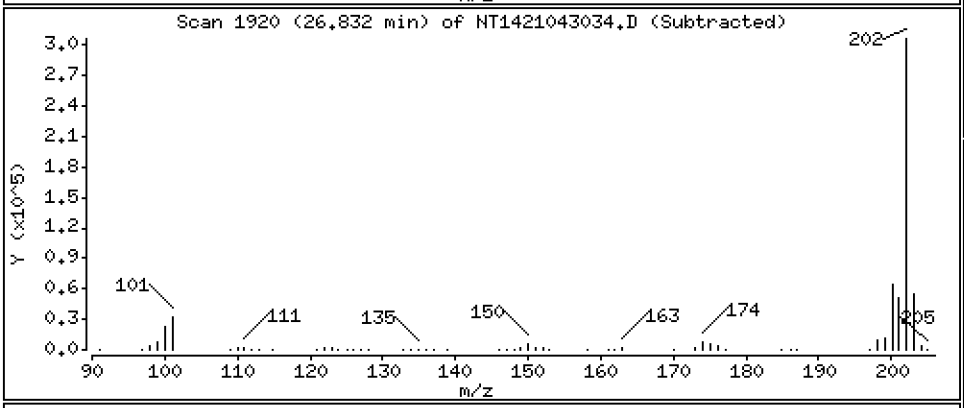
Column diameter: 0.25

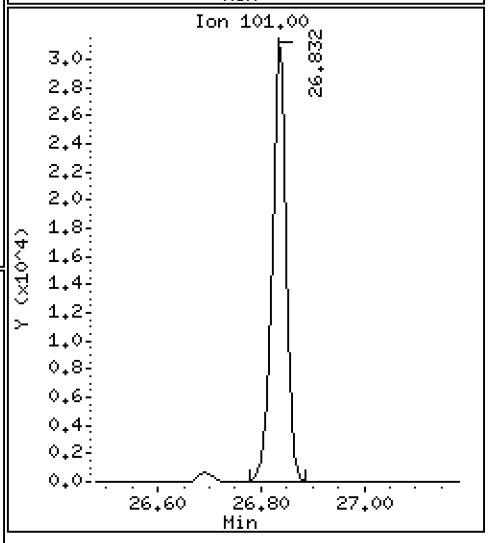
46 Pyrene

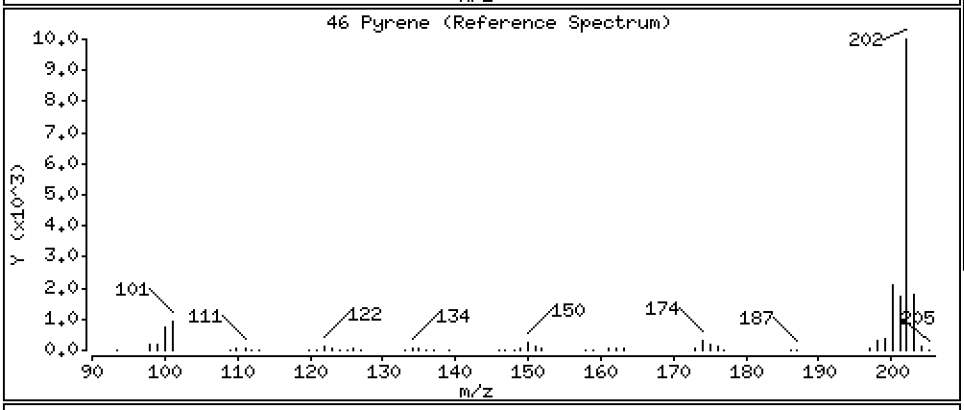
Concentration: 2.467 ug/mL

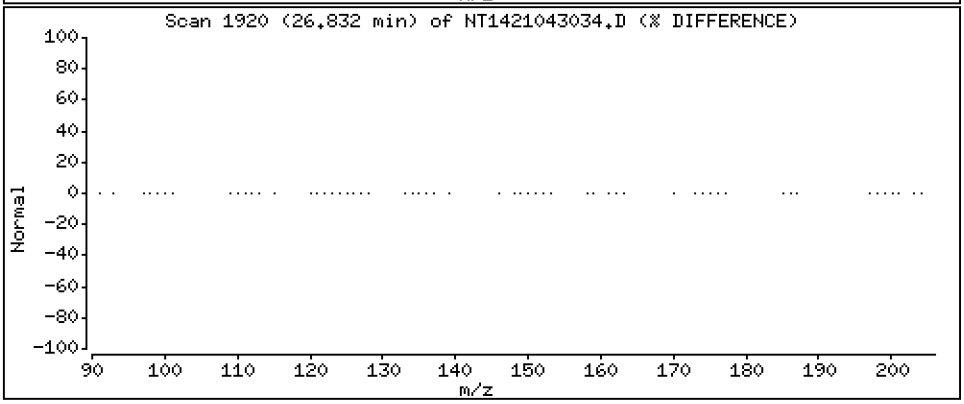












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

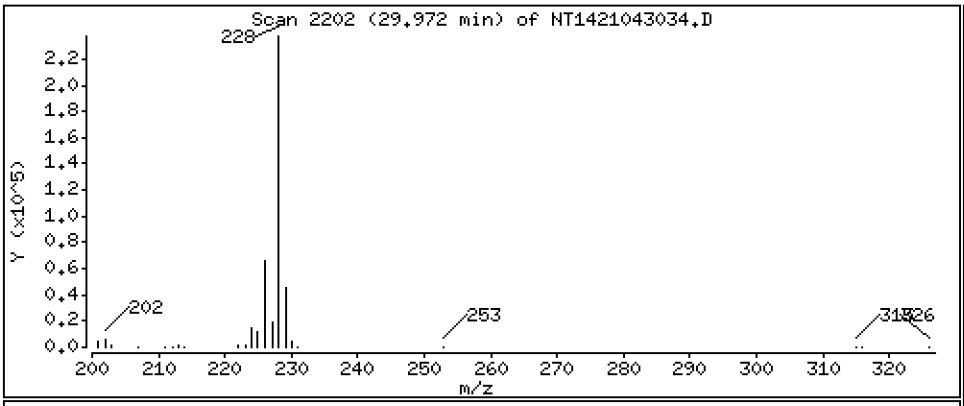
Operator: VTS

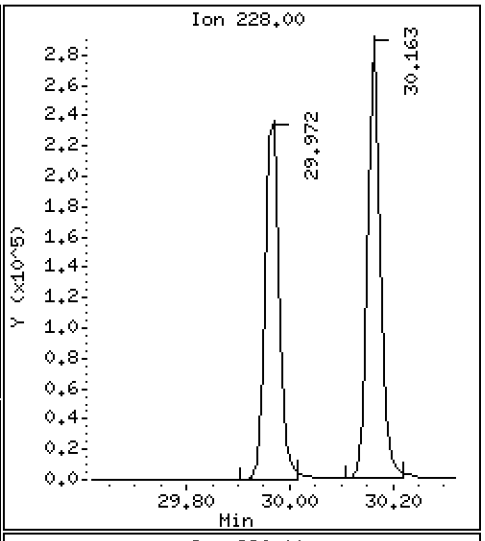
Column phase: Rxi-17Sil MS

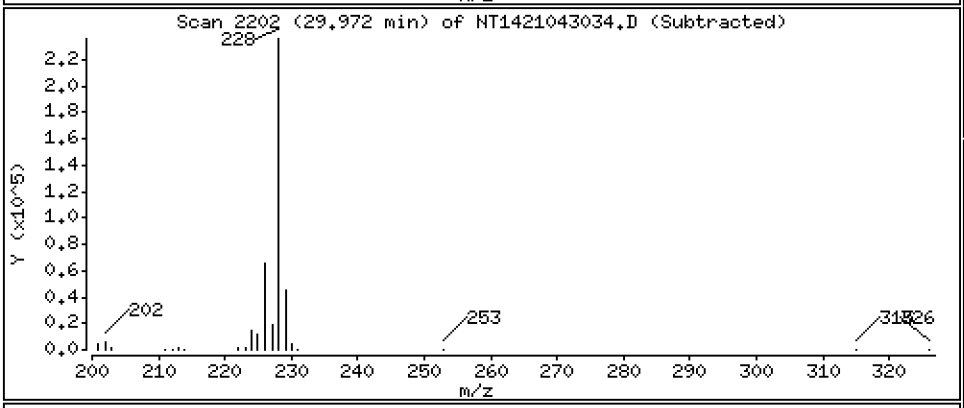
Column diameter: 0.25

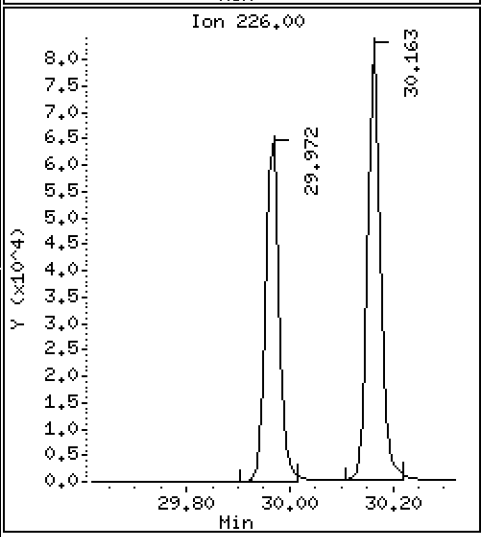
55 Benzo(a)anthracene

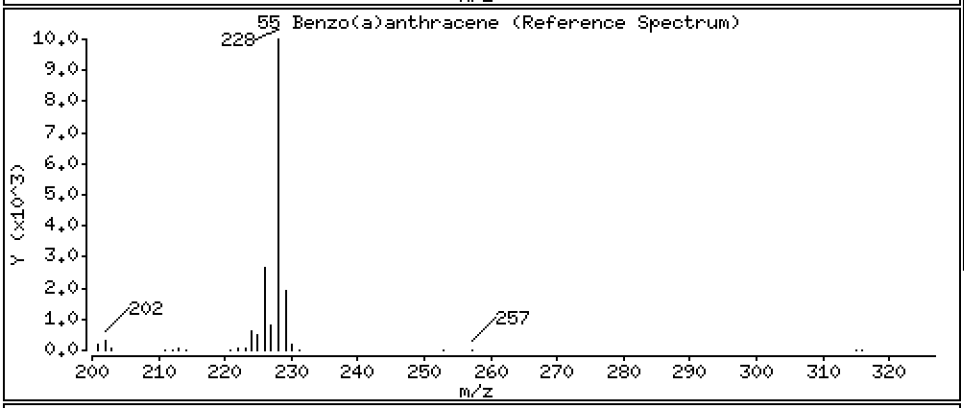
Concentration: 2.308 ug/mL

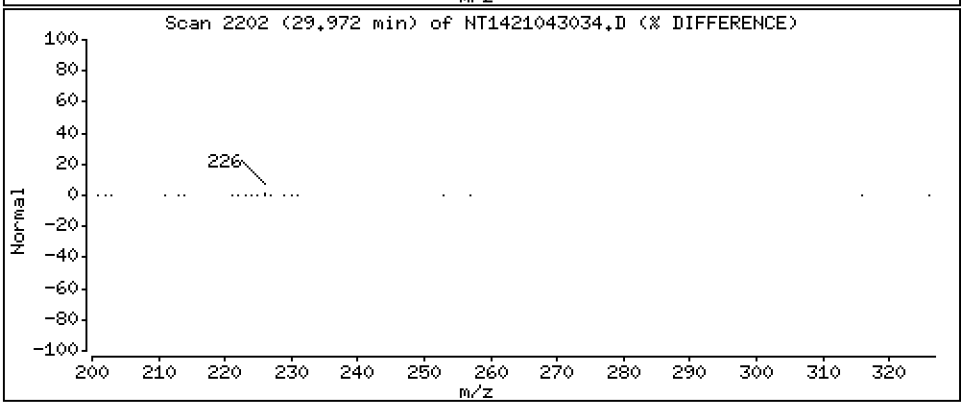












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

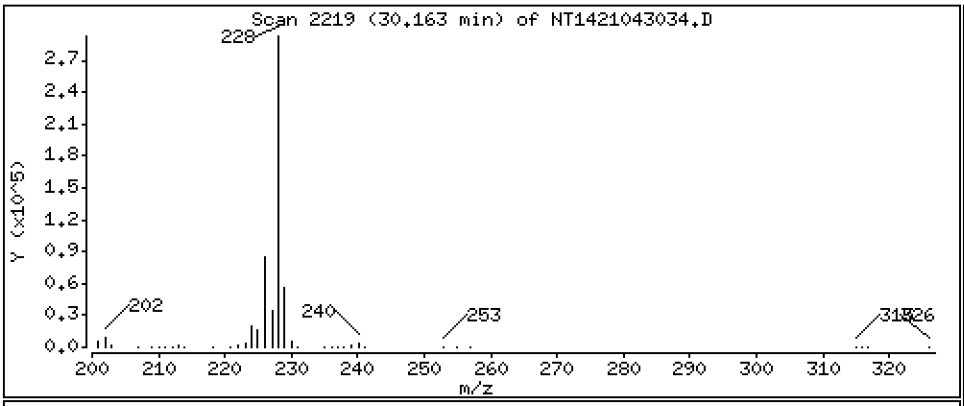
Operator: VTS

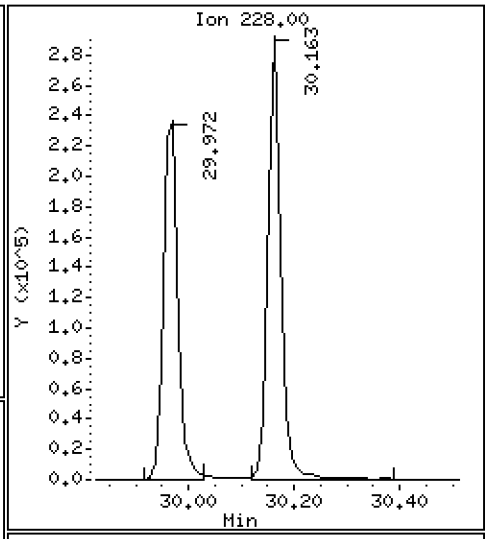
Column phase: Rxi-17Sil MS

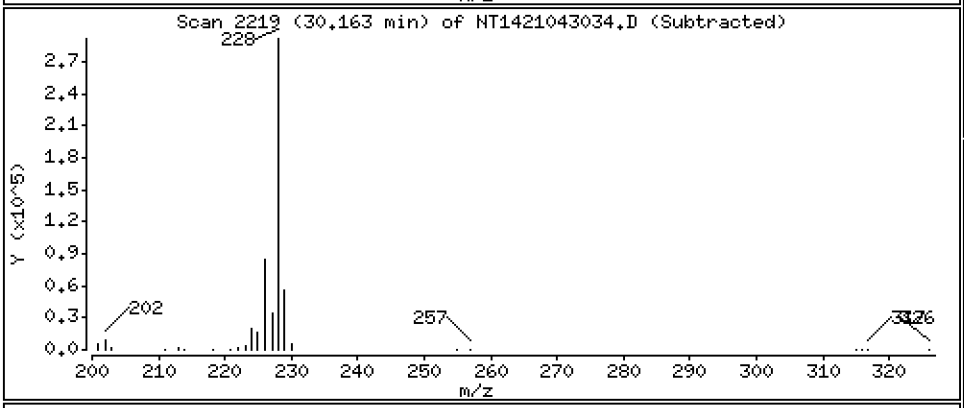
Column diameter: 0.25

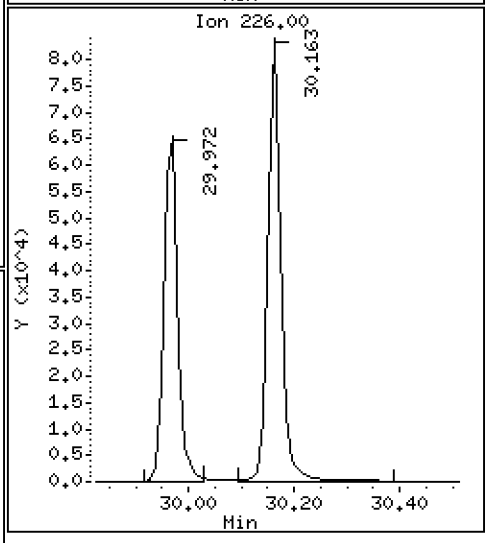
57 Chrysene

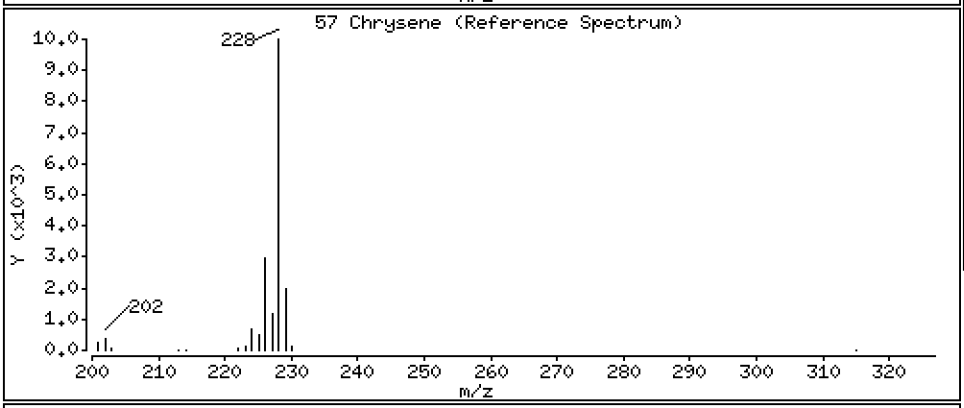
Concentration: 2.497 ug/mL

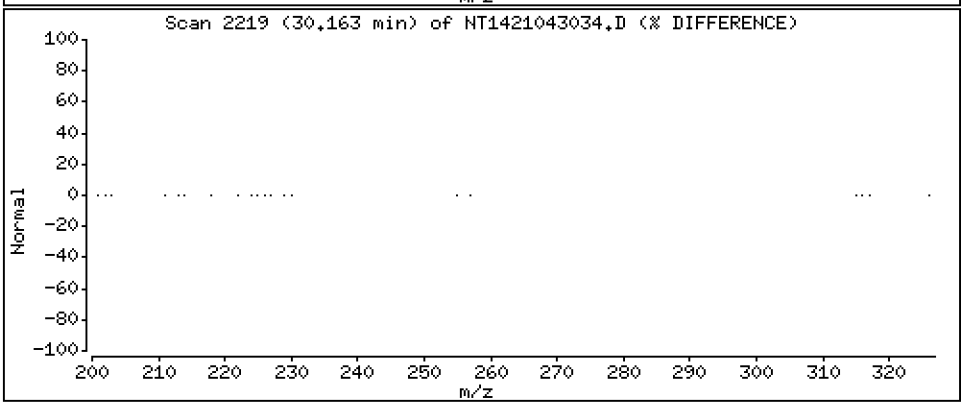












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Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

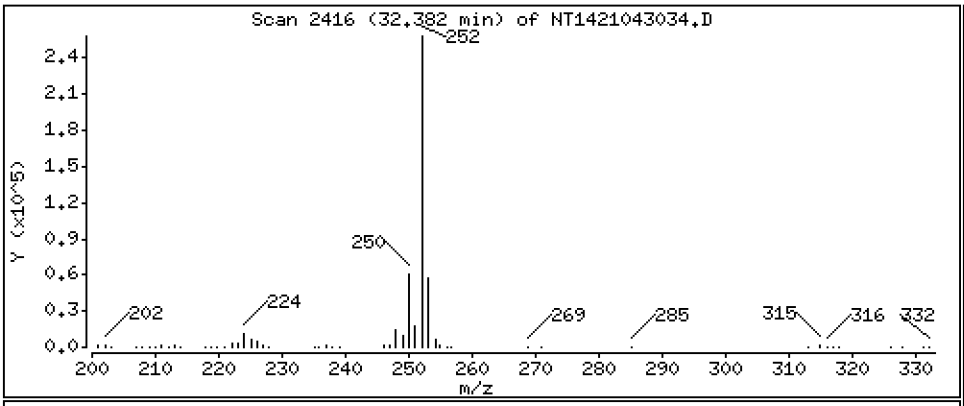
Operator: VTS

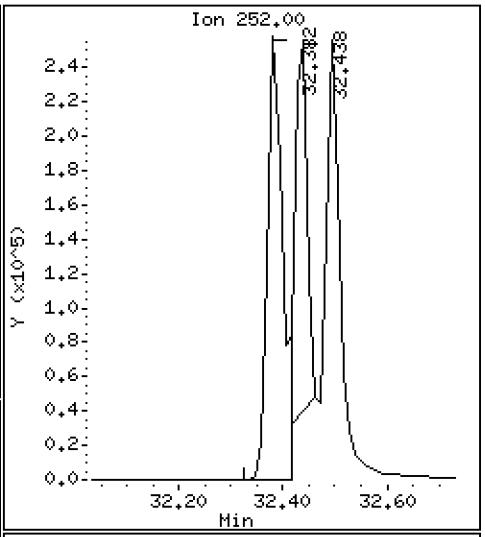
Column phase: Rxi-17Sil MS

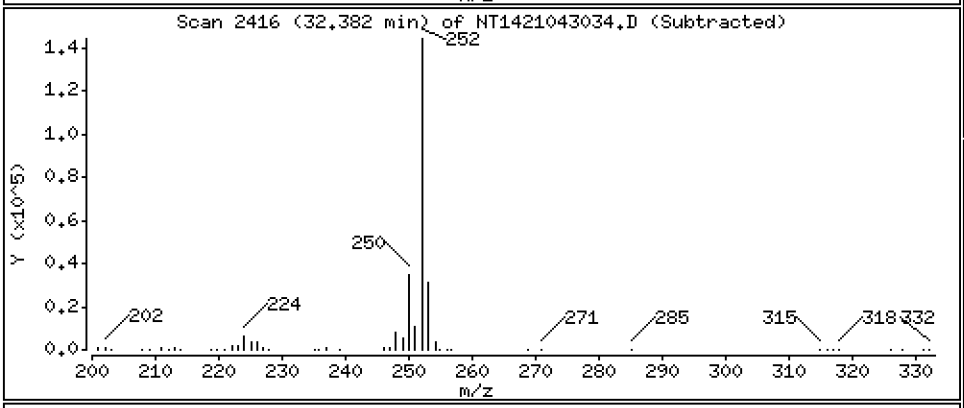
Column diameter: 0.25

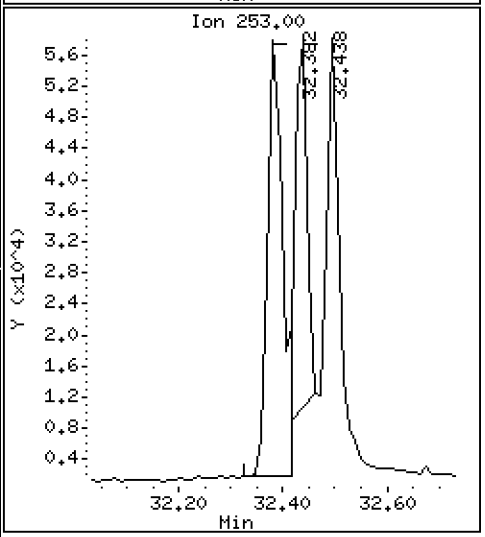
62 Benzo(b)fluoranthene

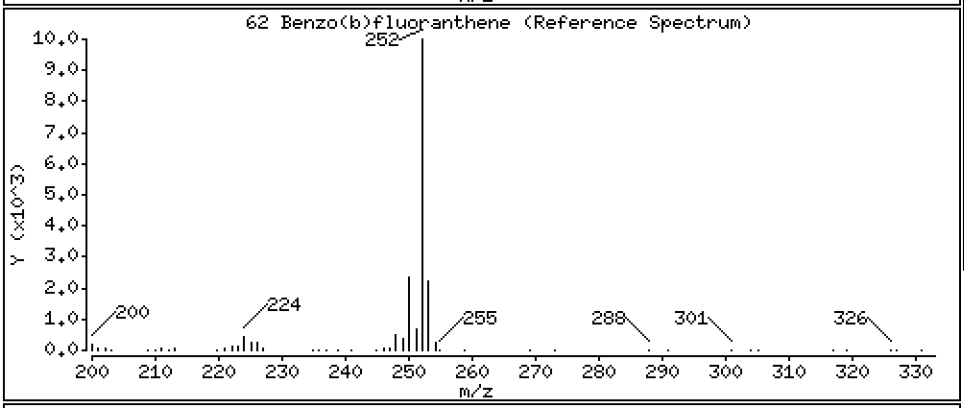
Concentration: 2.719 ug/mL

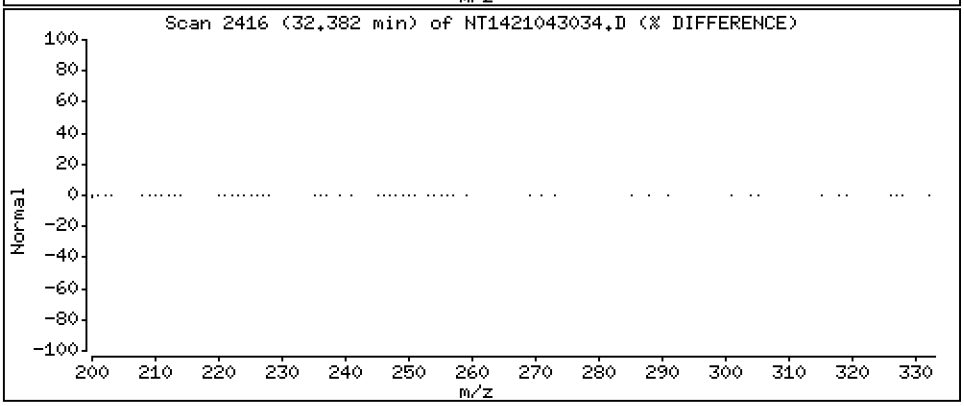












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

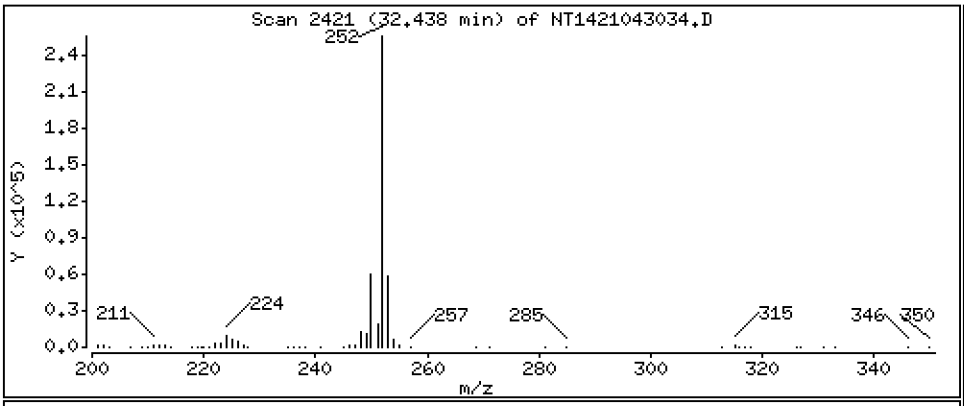
Operator: VTS

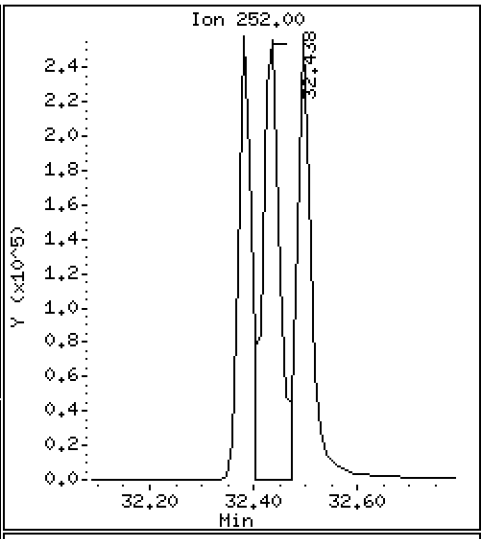
Column phase: Rxi-17Sil MS

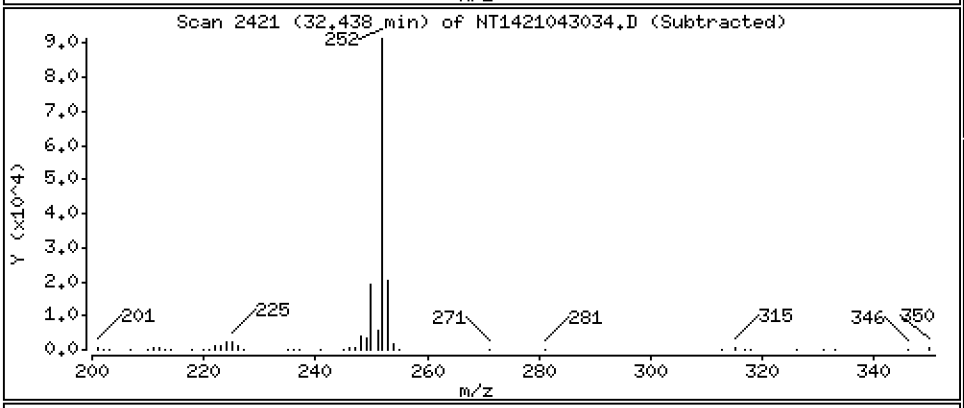
Column diameter: 0.25

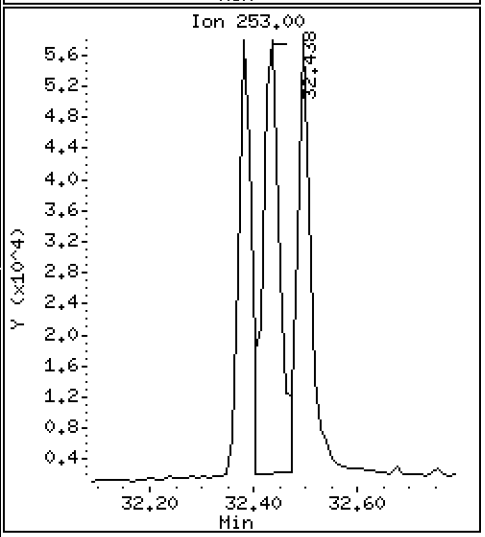
63 Benzo(k)fluoranthene

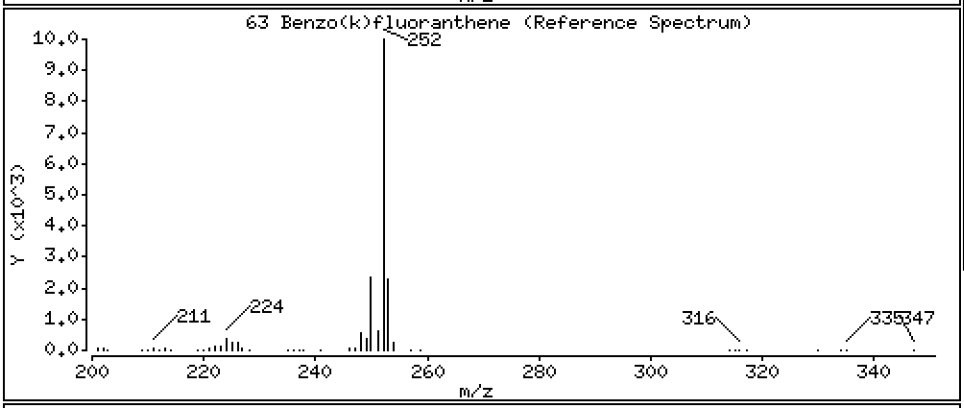
Concentration: 2.541 ug/mL

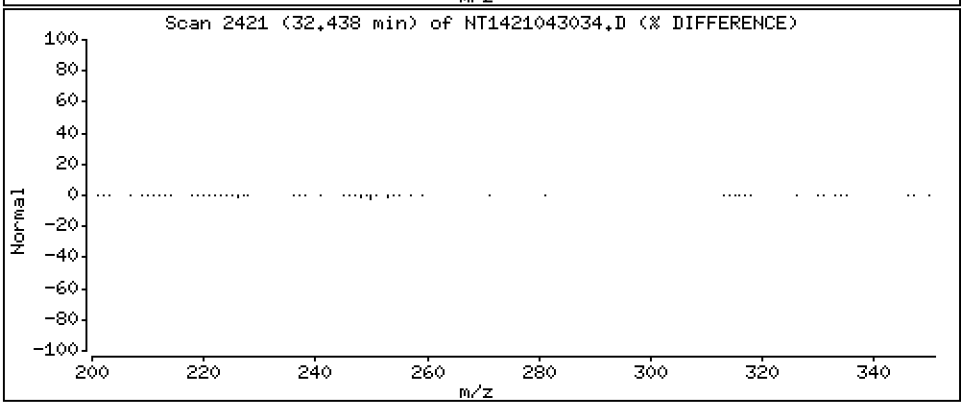












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

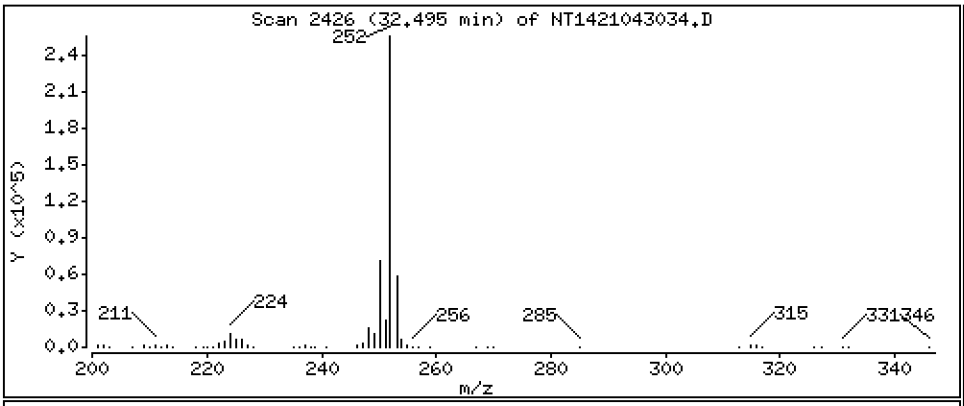
Operator: VTS

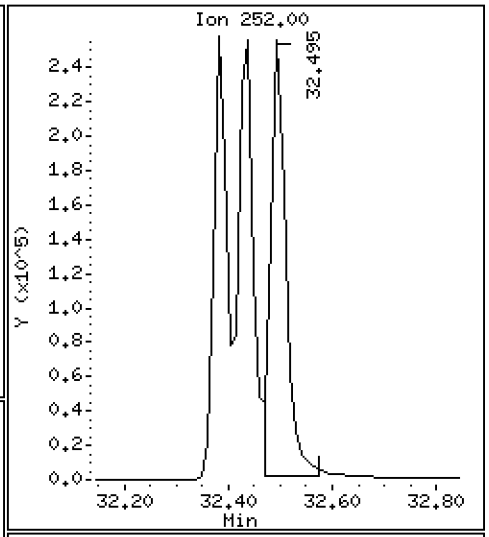
Column phase: Rxi-17Sil MS

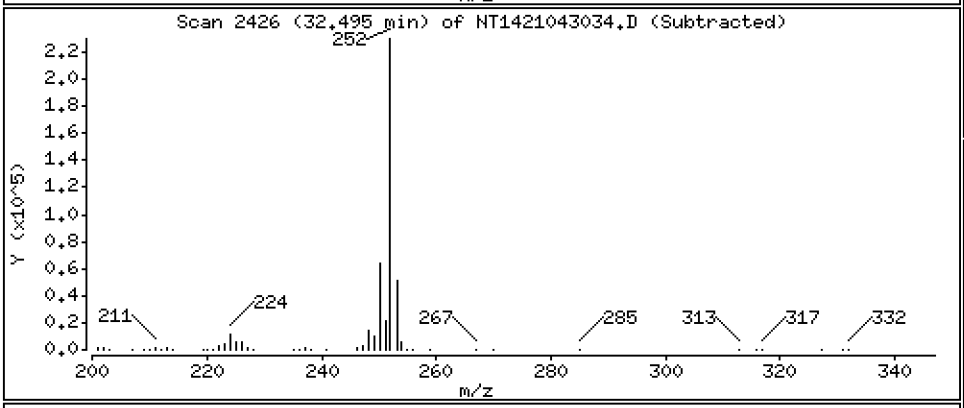
Column diameter: 0.25

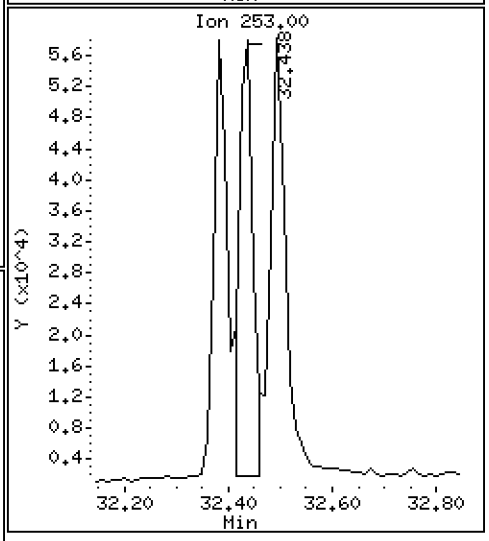
293 Benzo(j)fluoranthene

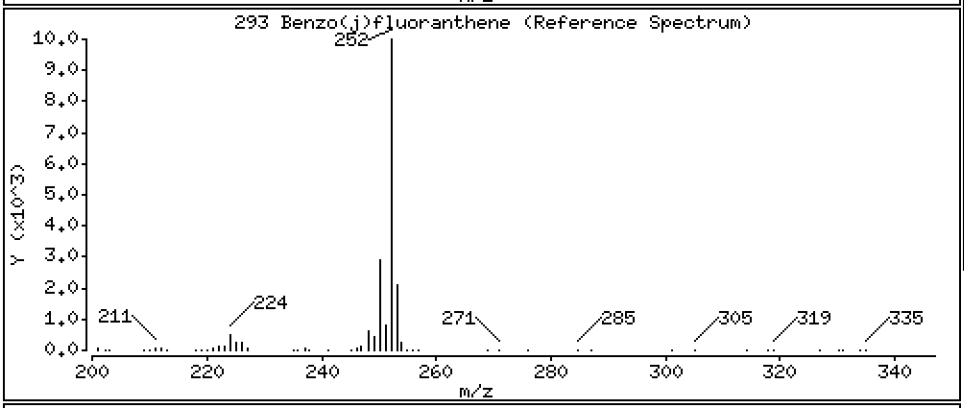
Concentration: 2.340 ug/mL

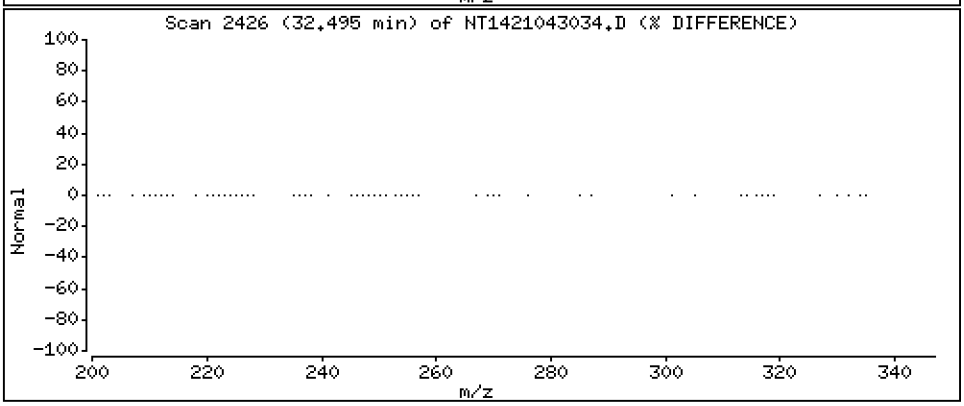












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

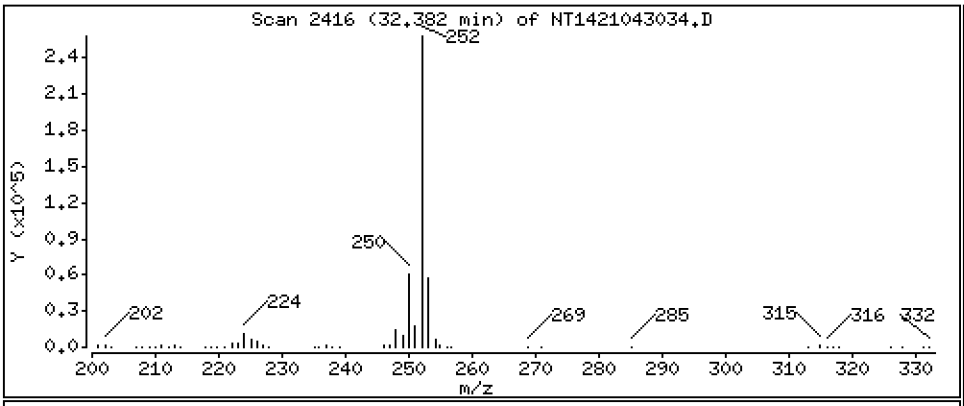
Operator: VTS

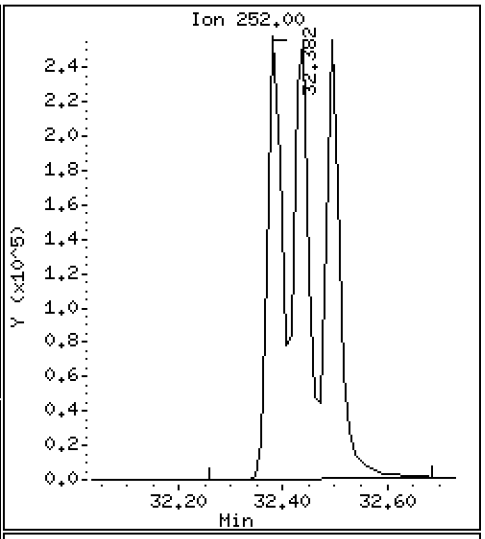
Column phase: Rxi-17Sil MS

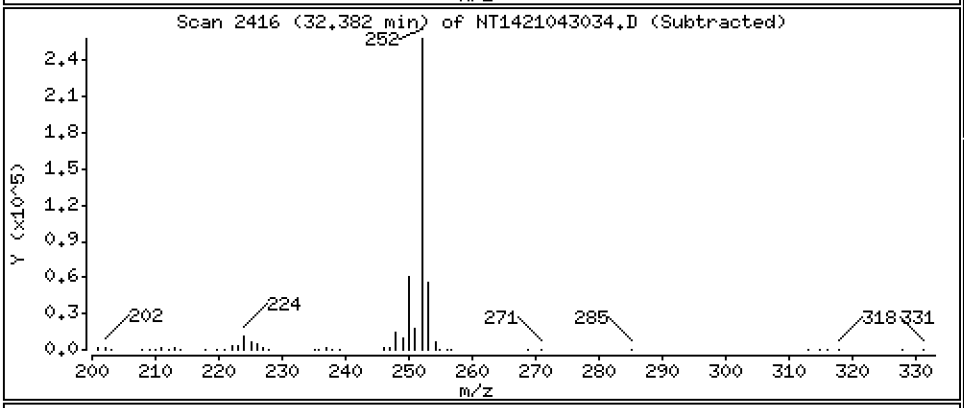
Column diameter: 0.25

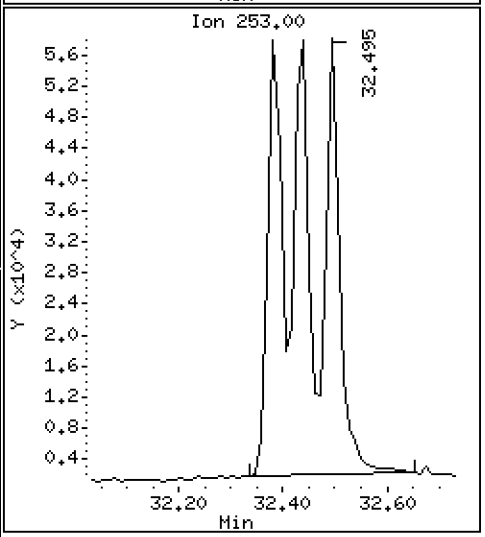
246 Total Benzofluoranthenes

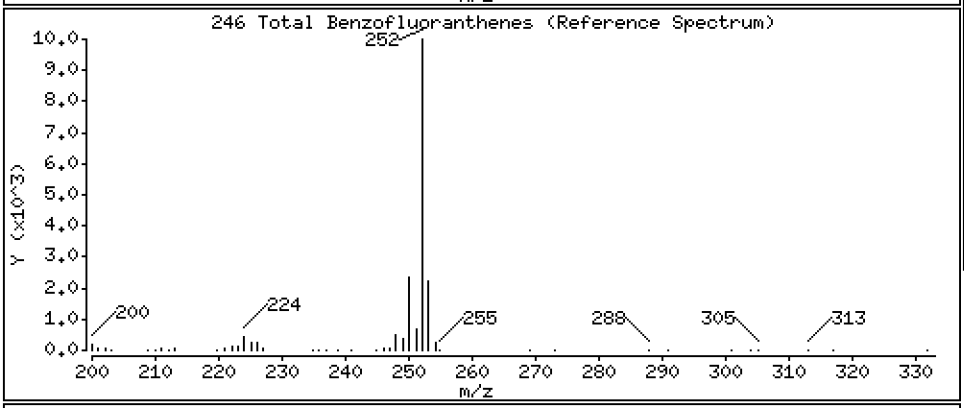
Concentration: 7.081 ug/mL

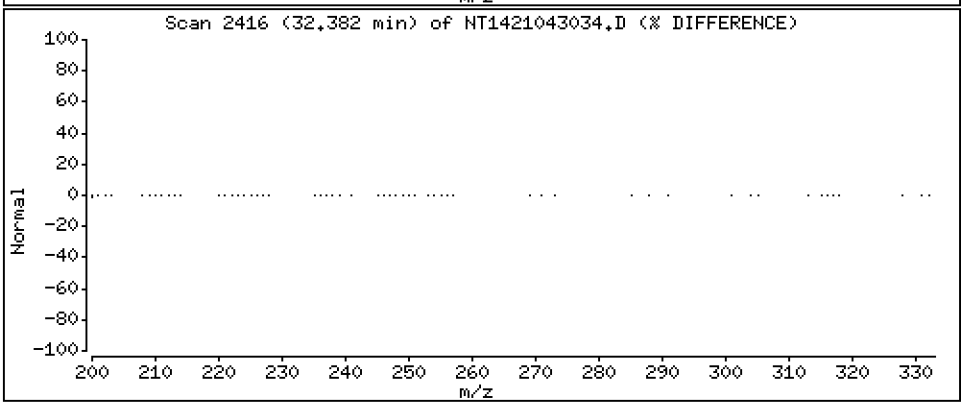












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

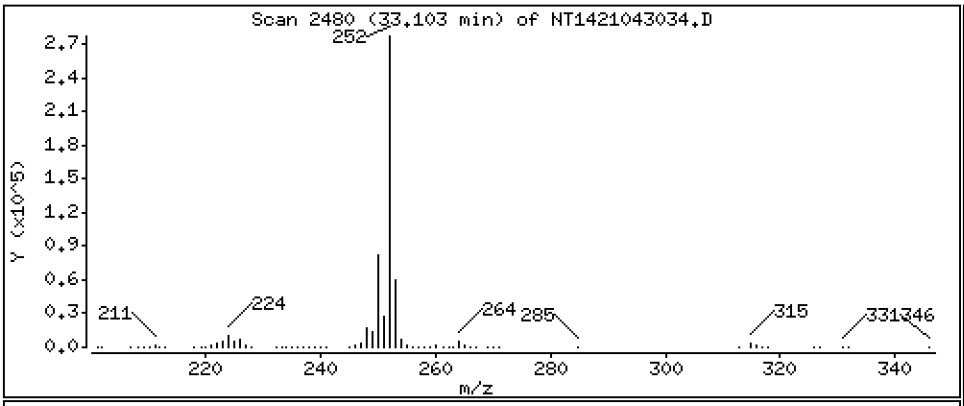
Operator: VTS

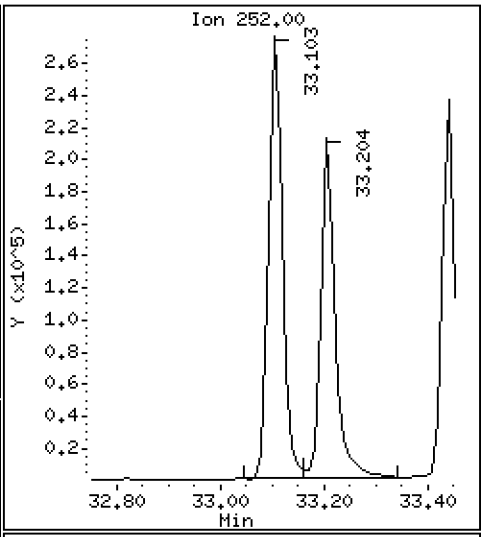
Column phase: Rxi-17Sil MS

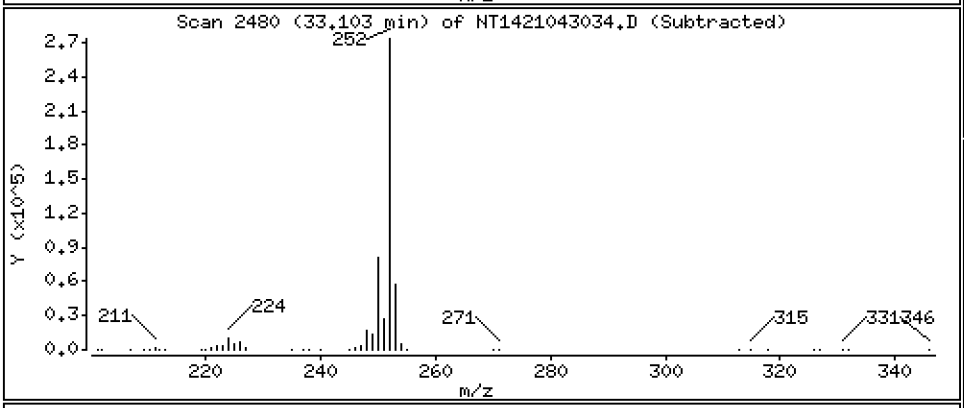
Column diameter: 0.25

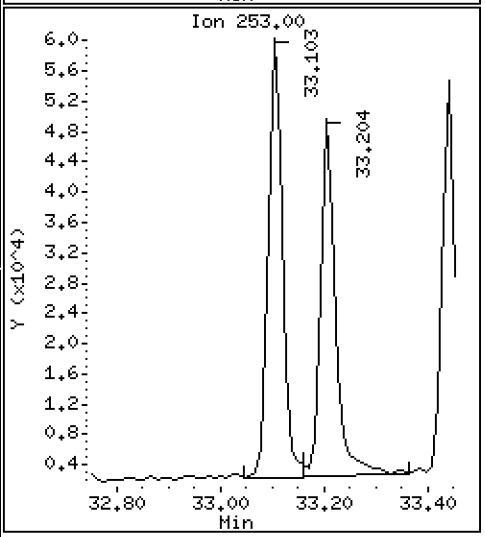
64 Benzo(e)pyrene

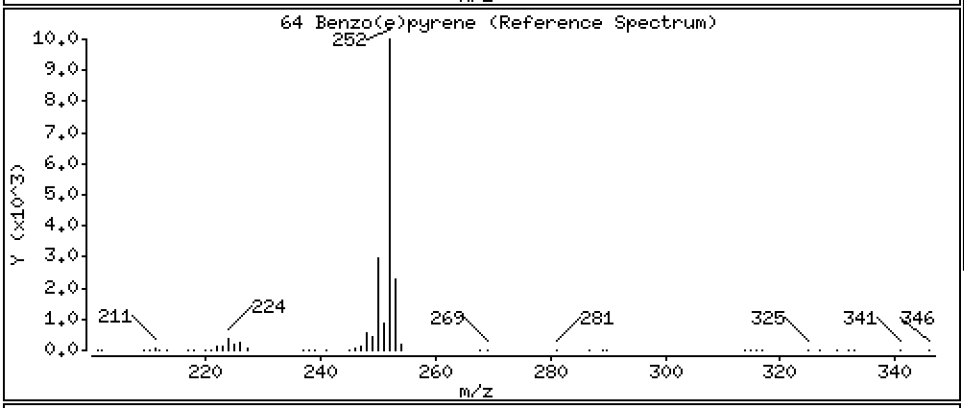
Concentration: 2.560 ug/mL

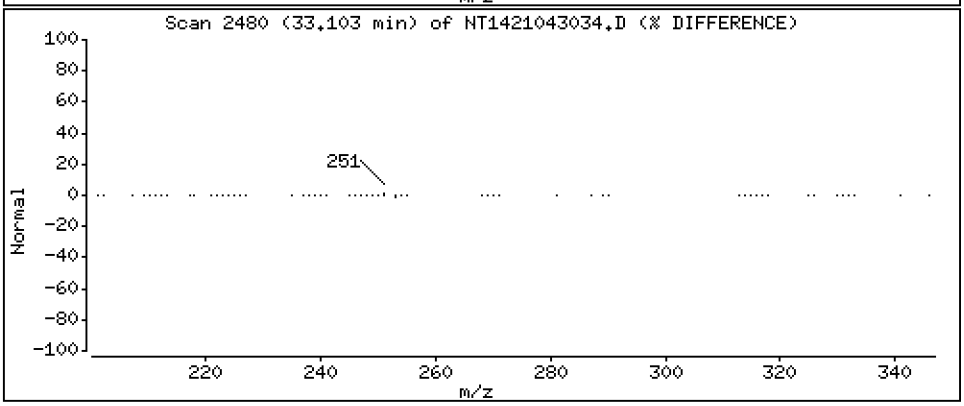












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

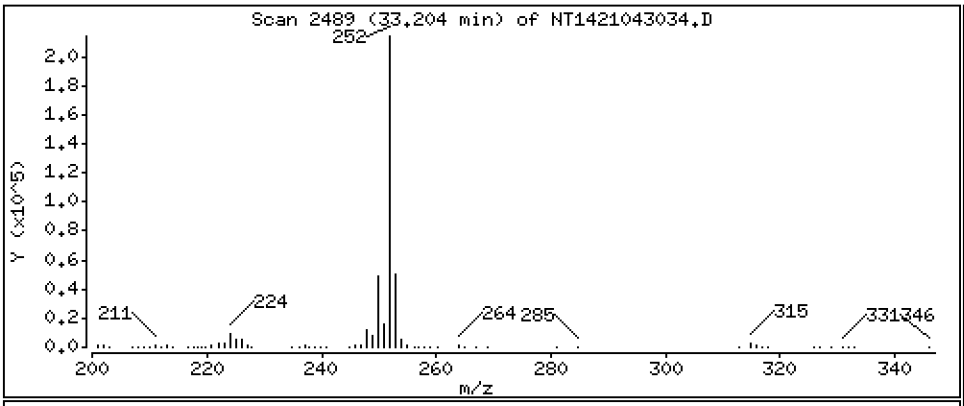
Operator: VTS

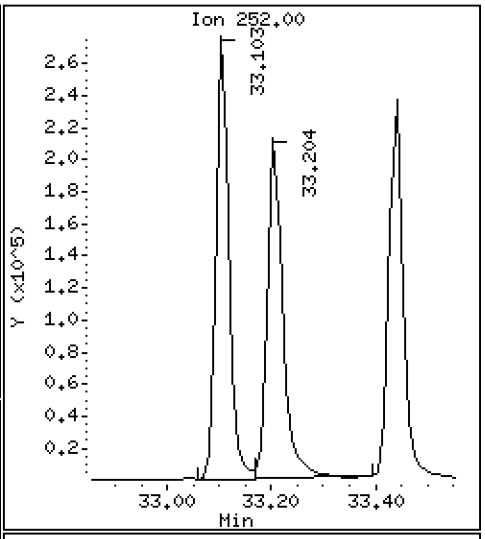
Column phase: Rxi-17Sil MS

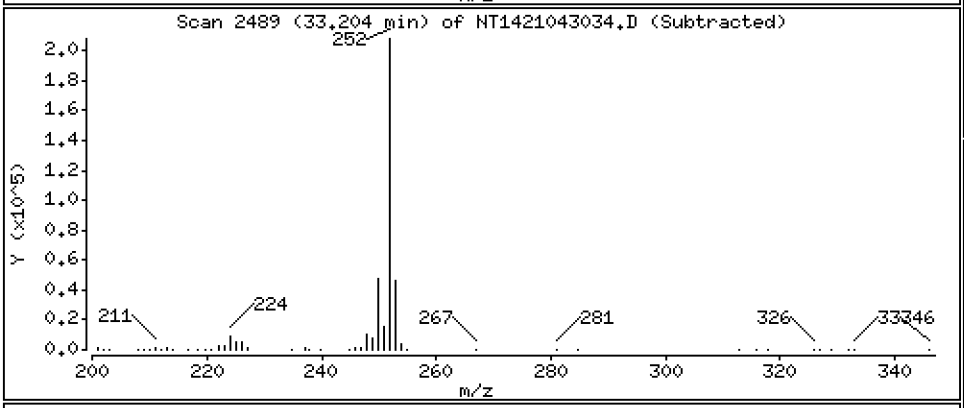
Column diameter: 0.25

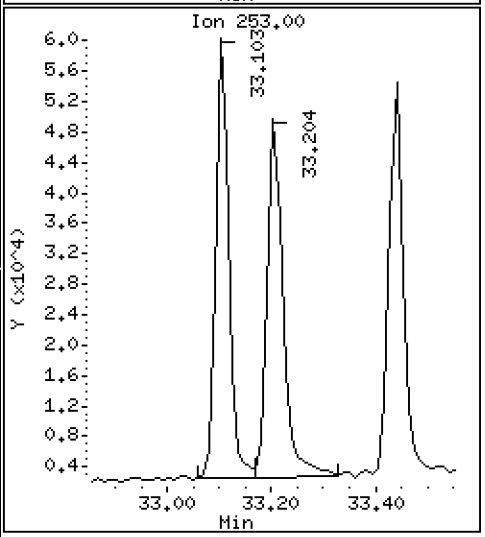
66 Benzo(a)pyrene

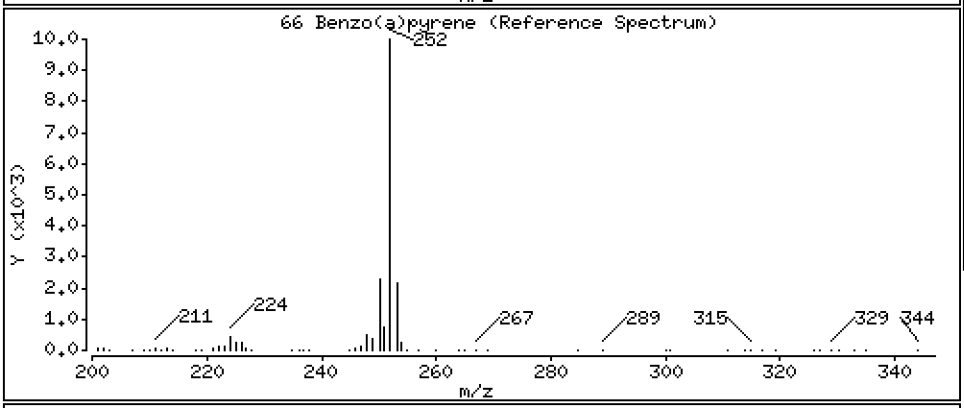
Concentration: 2.118 ug/mL

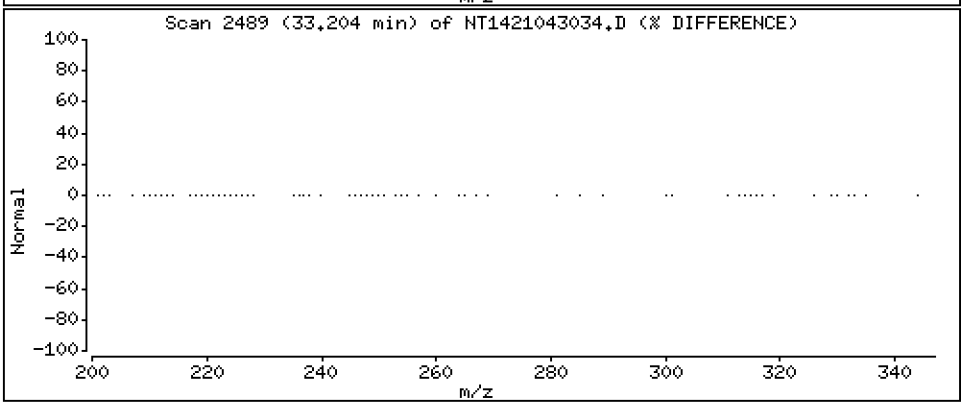












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

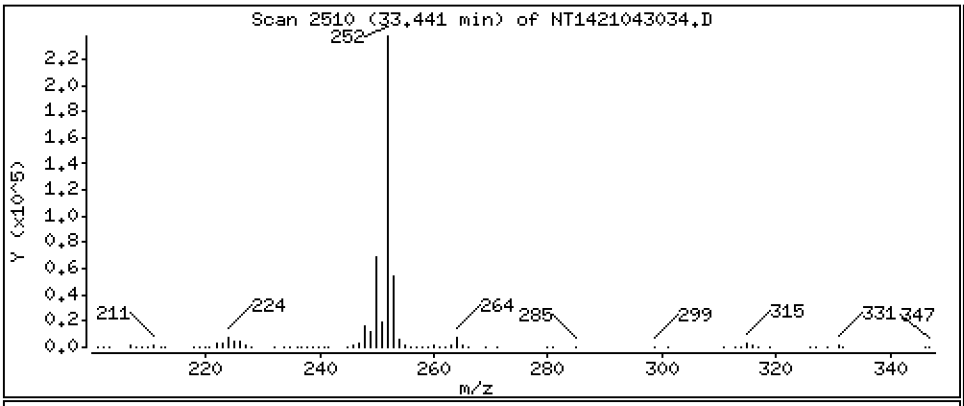
Operator: VTS

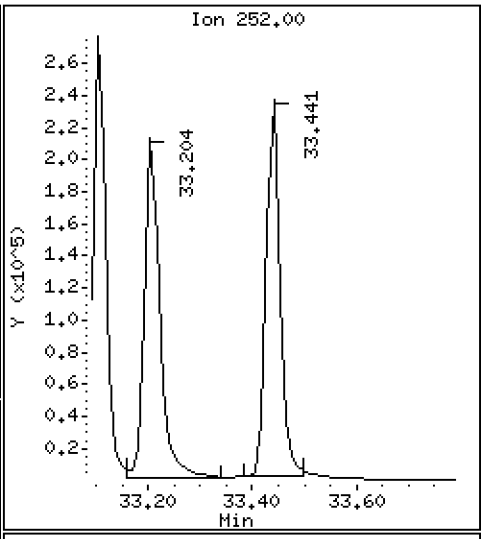
Column phase: Rxi-17Sil MS

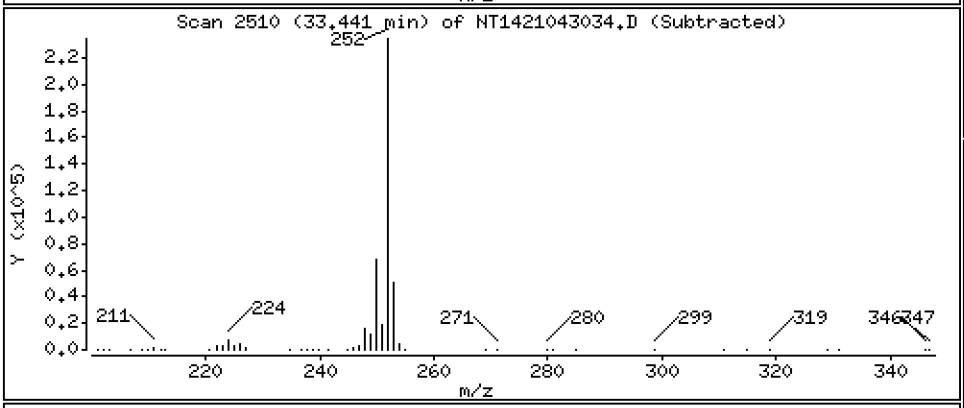
Column diameter: 0.25

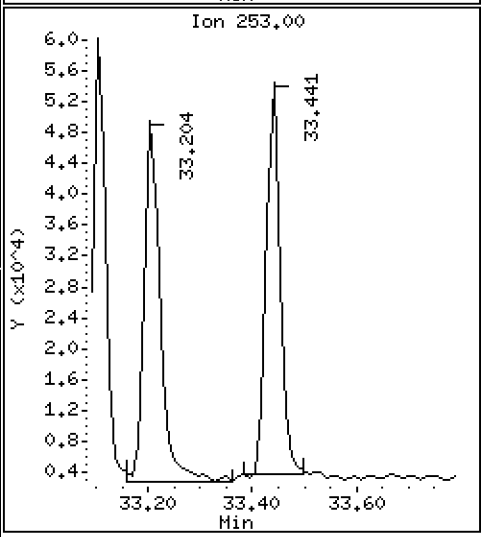
68 Perylene

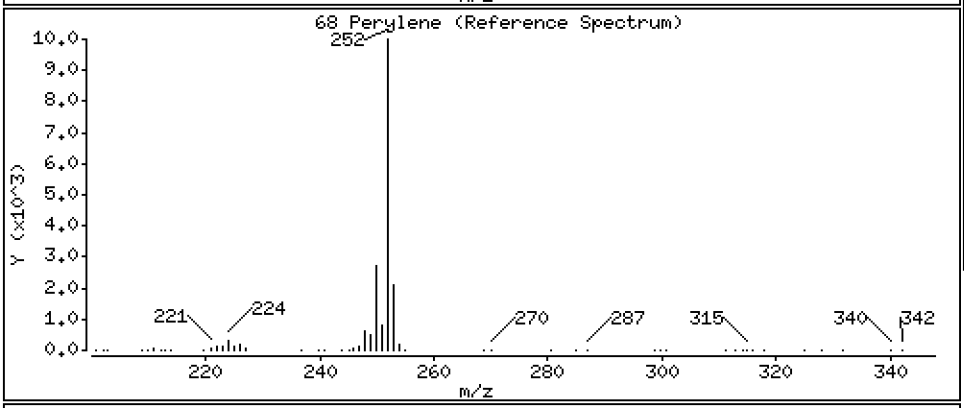
Concentration: 2.266 ug/mL

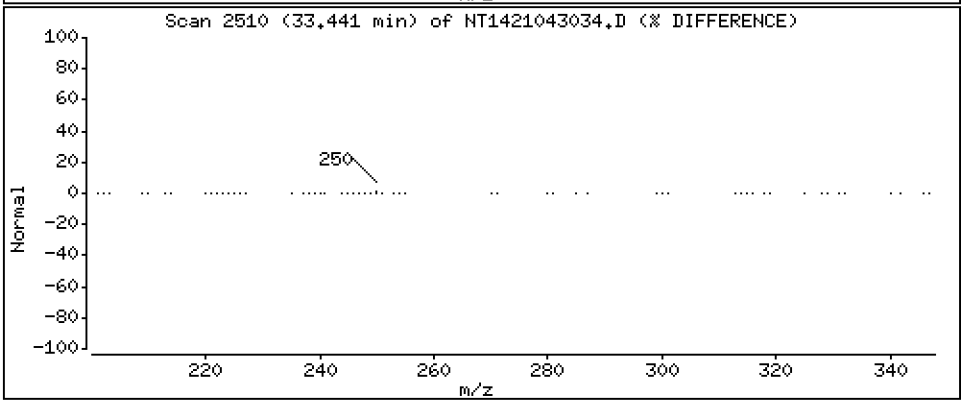












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

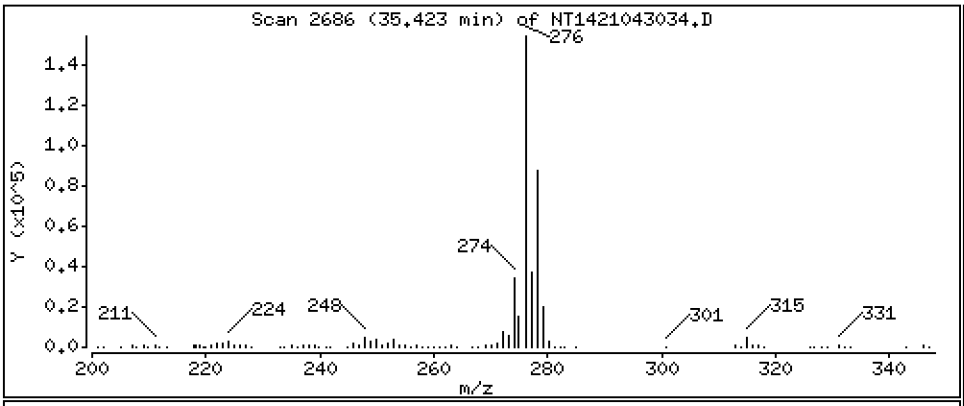
Operator: VTS

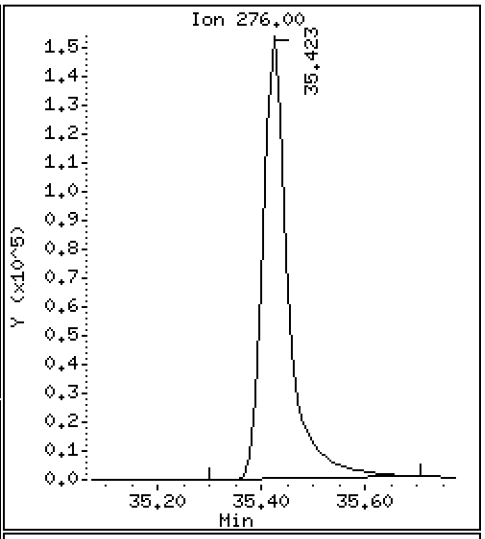
Column phase: Rxi-17Sil MS

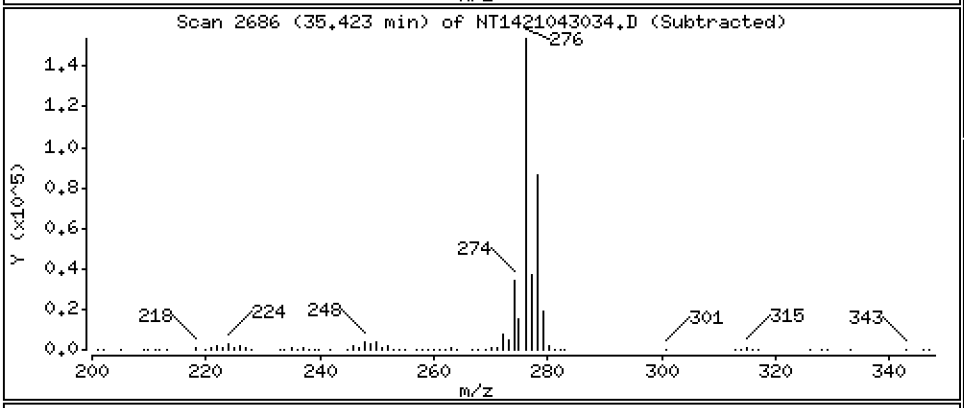
Column diameter: 0.25

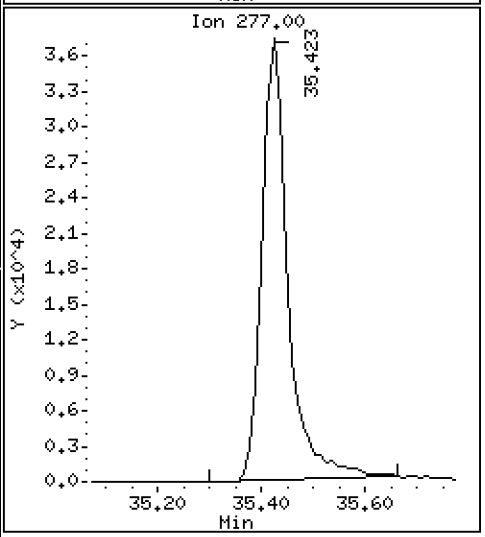
69 Indeno(1,2,3-cd)pyrene

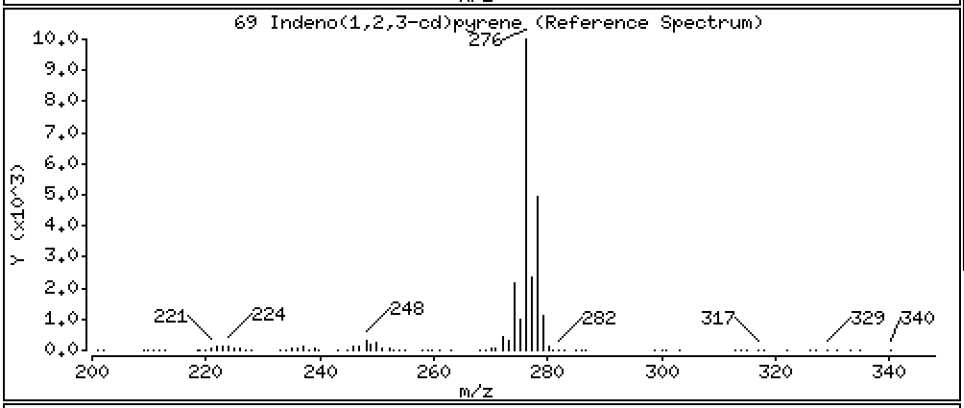
Concentration: 2.515 ug/mL

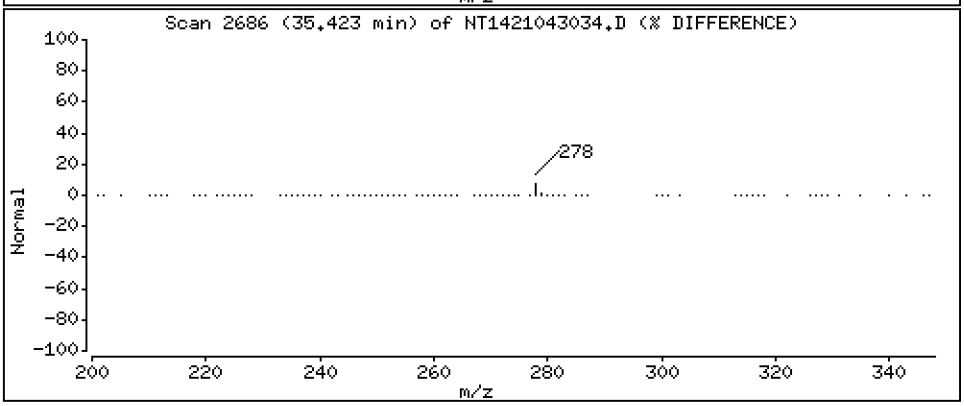












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

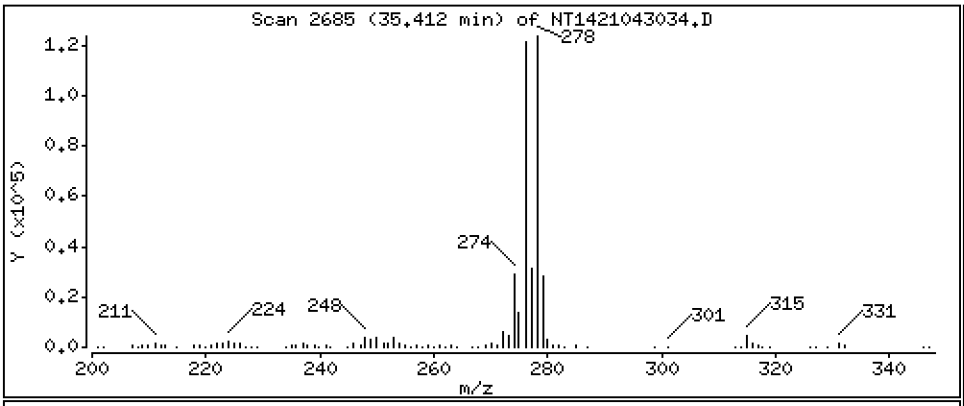
Operator: VTS

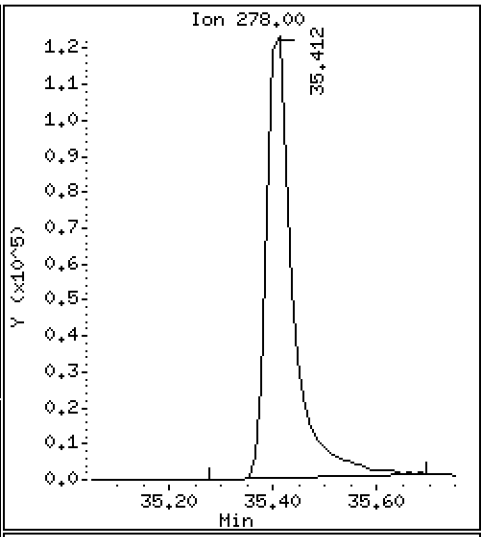
Column phase: Rxi-17Sil MS

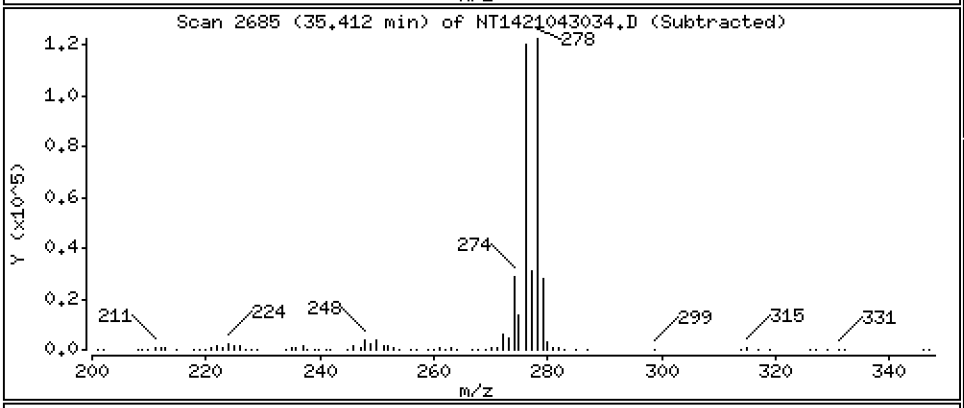
Column diameter: 0.25

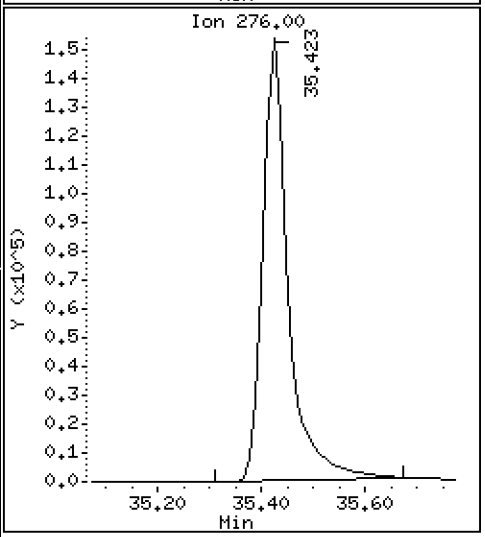
70 Dibenzo(a,h)anthracene

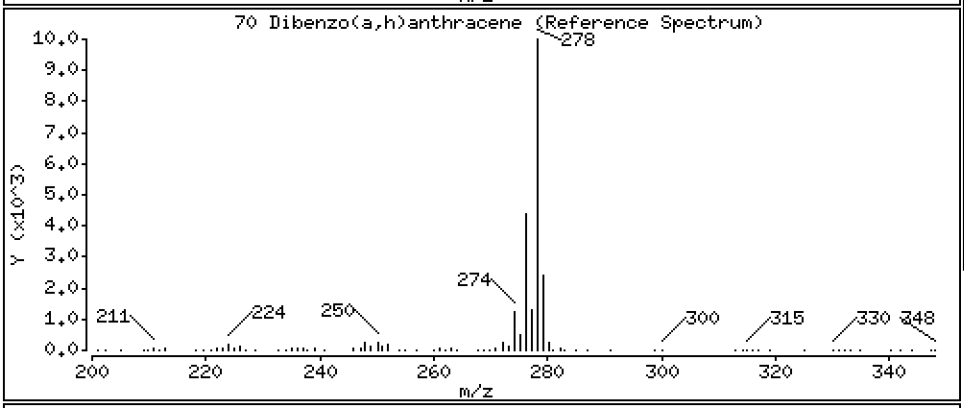
Concentration: 2.437 ug/mL

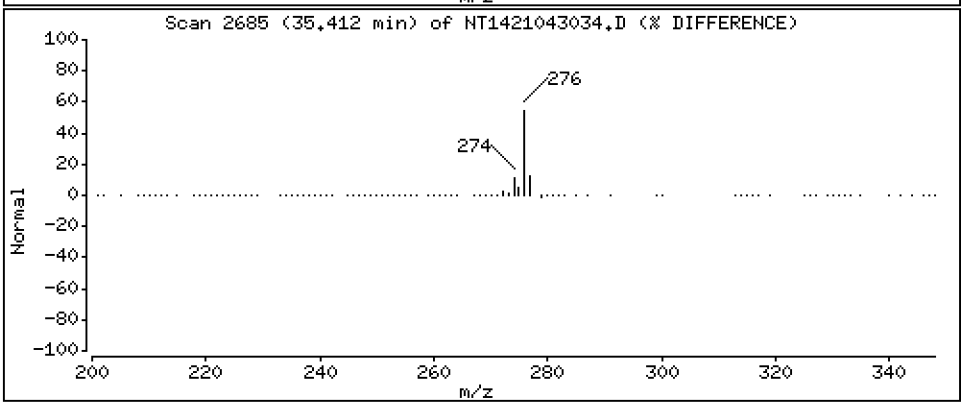












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D

Date : 01-MAY-2021 09:58

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BS1

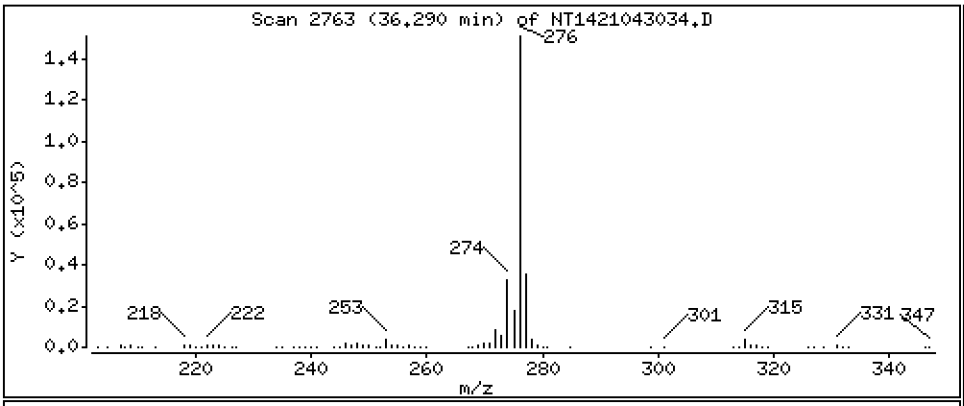
Operator: VTS

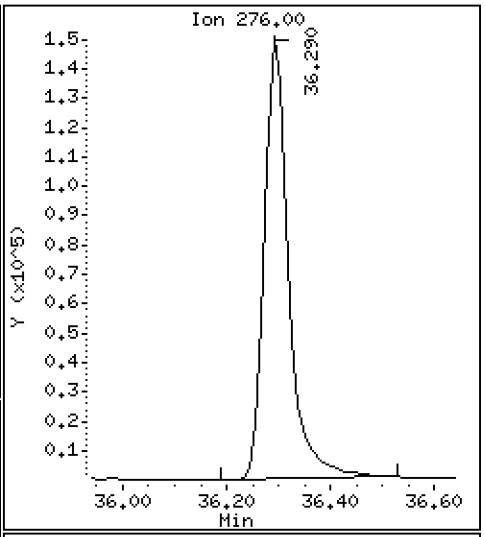
Column phase: Rxi-17Sil MS

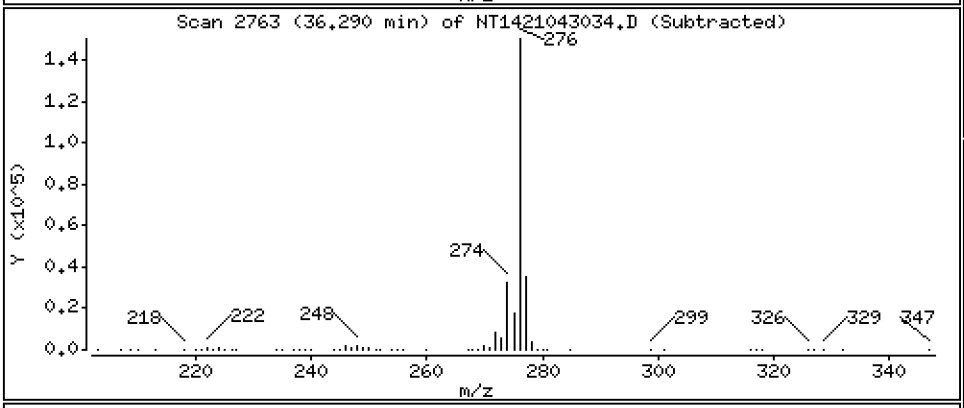
Column diameter: 0.25

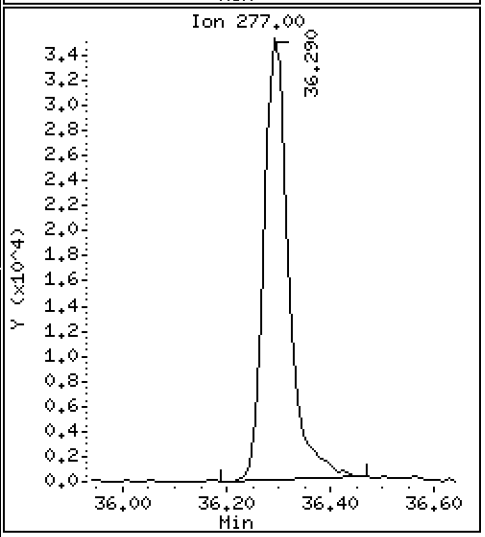
74 Benzo(g,h,i)perylene

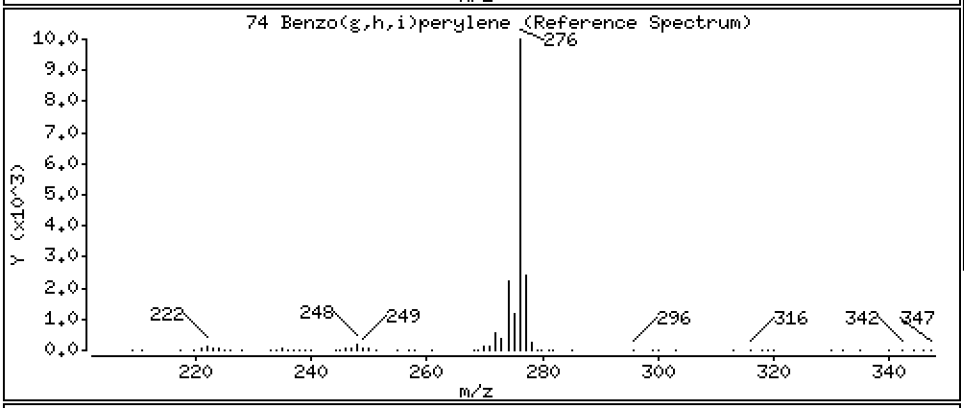
Concentration: 2.764 ug/mL

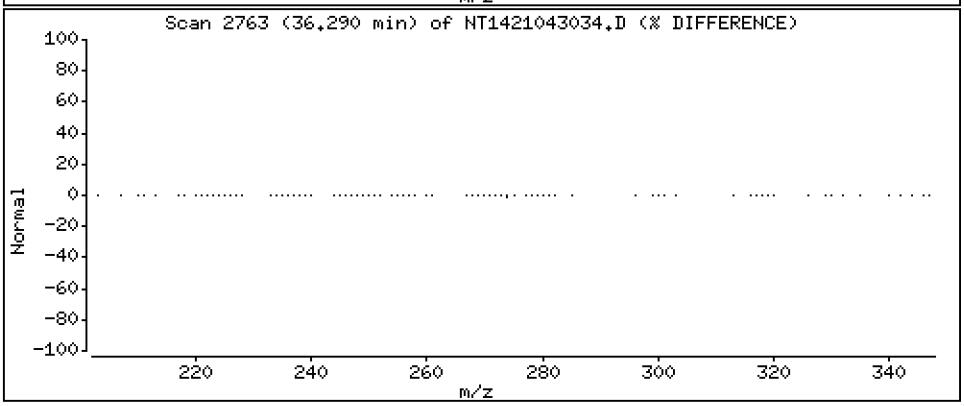












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043034.D
Lab Smp Id: BJD0501-BS1
Inj Date : 01-MAY-2021 09:58
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0501-BS1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 07-May-2021 10:16 yev Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 30
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.035	7.045	(0.375)	63351	1.68707	1.687
	2 cis-Decalin	138	8.145	8.165	(0.434)	48053	1.85365	1.854
$	6 Naphthalene-d8	136	11.766	11.776	(0.627)	619878	2.13076	2.131(R)
	7 Naphthalene	128	11.836	11.836	(0.631)	611513	2.06656	2.067
	12 Benzo(b)thiophene	134	12.284	12.295	(0.654)	494680	2.10125	2.101
	16 2-Methylnaphthalene	141	13.669	13.680	(0.728)	345242	2.18632	2.186
	17 1-methylnaphthalene	141	14.120	14.131	(0.752)	324356	2.16787	2.168
	18 Biphenyl	154	15.306	15.318	(0.815)	503733	2.22896	2.229
	19 2,6-Dimethylnaphthalene	156	15.383	15.395	(0.820)	356529	2.29265	2.293
	20 Acenaphthylene	152	16.955	16.955	(0.903)	565138	2.30929	2.309
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	333928	2.35076	2.351(R)
	22 Acenaphthene	153	17.351	17.362	(0.924)	392441	2.49516	2.495
	23 Dibenzofuran	168	17.724	17.735	(0.944)	568601	2.38583	2.386
	24 1,6,7-Trimethylnaphthalene	170	17.955	17.966	(0.956)	350381	2.56731	2.567
*	25 Fluorene-d10	176	18.772	18.772	(1.000)	504099	2.00000	
	26 Fluorene	166	18.874	18.885	(1.005)	438348	2.53085	2.531
	30 Dibenzothiophene	184	21.785	21.796	(1.161)	416982	1.90717	1.907
$	35 Phenanthrene-d10	188	22.104	22.104	(0.995)	557192	2.27634	2.276(R)
	36 Phenanthrene	178	22.181	22.181	(0.999)	630363	2.30673	2.307
*	250 Anthracene-d10	188	22.214	22.214	(1.000)	452959	2.00000	
	37 Anthracene	178	22.280	22.291	(1.003)	544792	2.16269	2.163
	42 Carbazole	167	23.566	23.566	(1.061)	514837	2.42935	2.429
	43 1-Methylphenanthrene	192	24.017	24.017	(1.081)	417627	2.51704	2.517
	44 Fluoranthene	202	25.985	25.996	(1.170)	597768	2.46304	2.463
	46 Pyrene	202	26.832	26.843	(1.208)	620395	2.46682	2.467
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.971	(0.907)	463380	2.30770	2.308
$	56 Chrysene-d12	240	30.095	30.095	(0.911)	382327	2.39738	2.397(R)
	57 Chrysene	228	30.163	30.163	(0.913)	511868	2.49719	2.497
	62 Benzo(b)fluoranthene	252	32.381	32.382	(0.980)	509819	2.71851	2.719
	63 Benzo(k)fluoranthene	252	32.438	32.438	(0.982)	579054	2.54134	2.541(M)
	293 Benzo(j)fluoranthene	252	32.494	32.494	(0.983)	488531	2.33993	2.340(M)
	246 Total Benzofluoranthenes	252	32.381	32.382	(0.980)	1449704	7.08132	7.081(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	438897	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	478569	2.56010	2.560
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	406516	2.11783	2.118
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	381940	2.24391	2.244(R)
68 Perylene	252	33.440	33.440	(1.012)	404591	2.26608	2.266
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	501250	2.51549	2.515(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.400	(1.072)	419244	2.43717	2.437(M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	464755	2.76363	2.764(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043034.D
Lab Smp Id: BJD0501-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	504099	-4.30
250 Anthracene-d10	481292	240646	962584	452959	-5.89
251 Benzo(e)pyrene-d1	486825	243413	973650	438897	-9.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043034.D

Lab ID: BJD0501-BS1
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 09:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

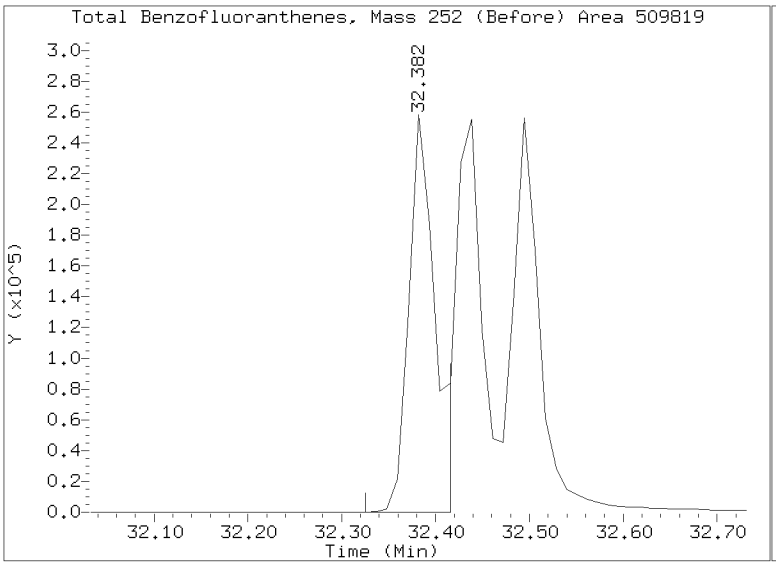
RRT check based on Ccal File: NT1421043024ICV.D

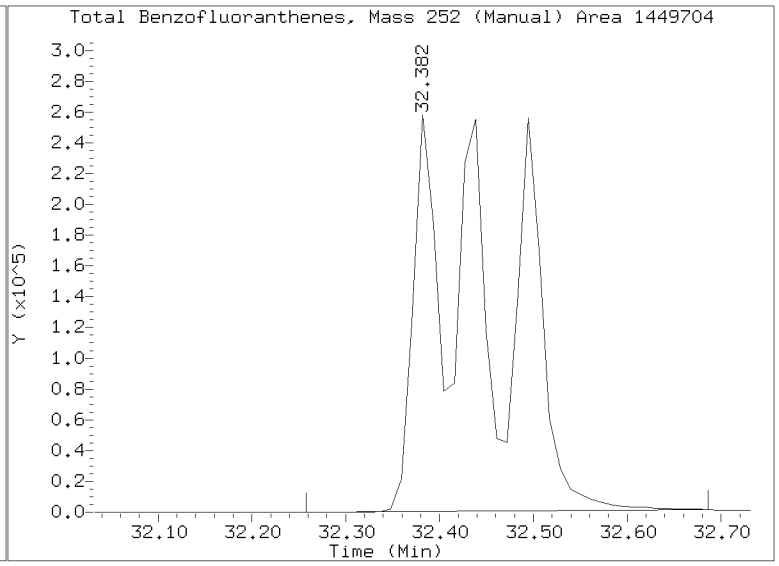
On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

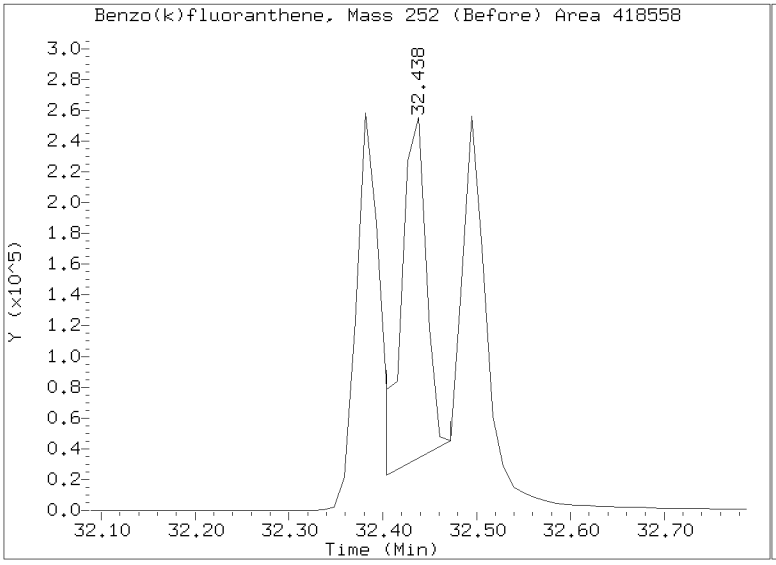
* Only compounds listed in the work order have been verified by the analyst *

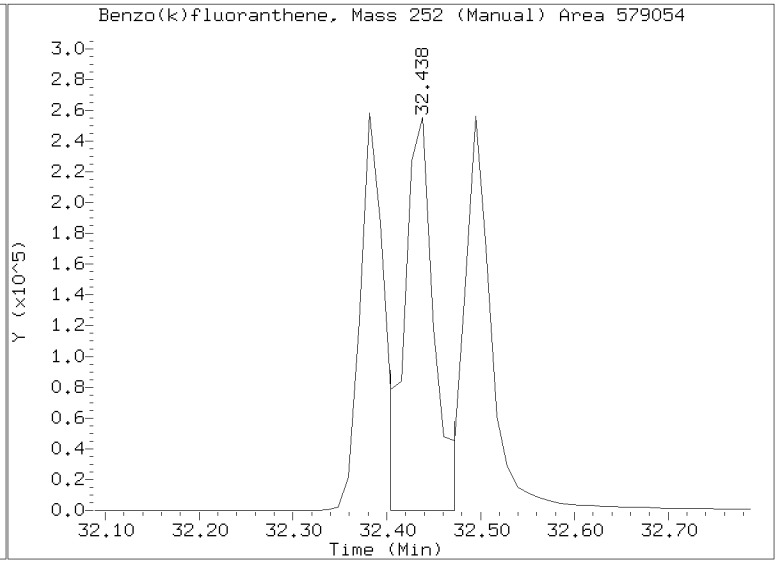
Quant Ion Manual Peak Adjustment Report

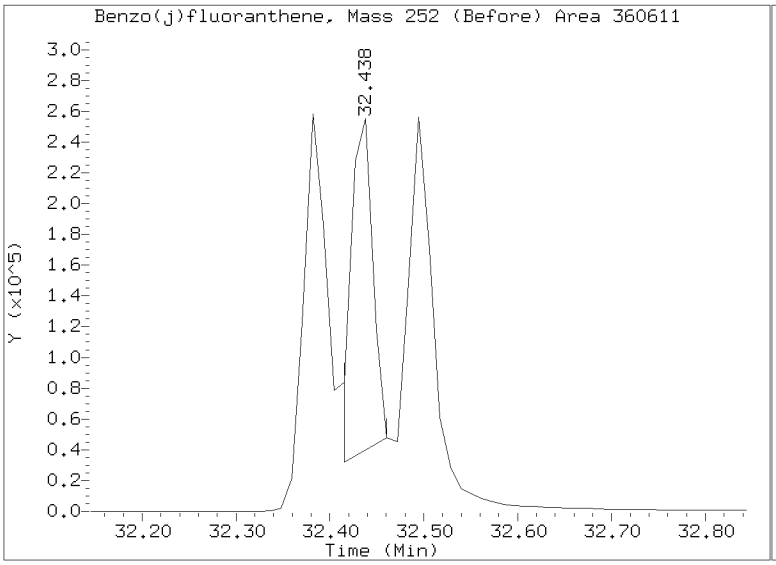
Datafile: //target/share/chem3/nt14.i/20210430B.b/NT1421043034.D
Injection Date: 01-MAY-2021 09:58
Lab ID:BJD0501-BS1 Client ID:
Report Date: 05/07/2021 10:17

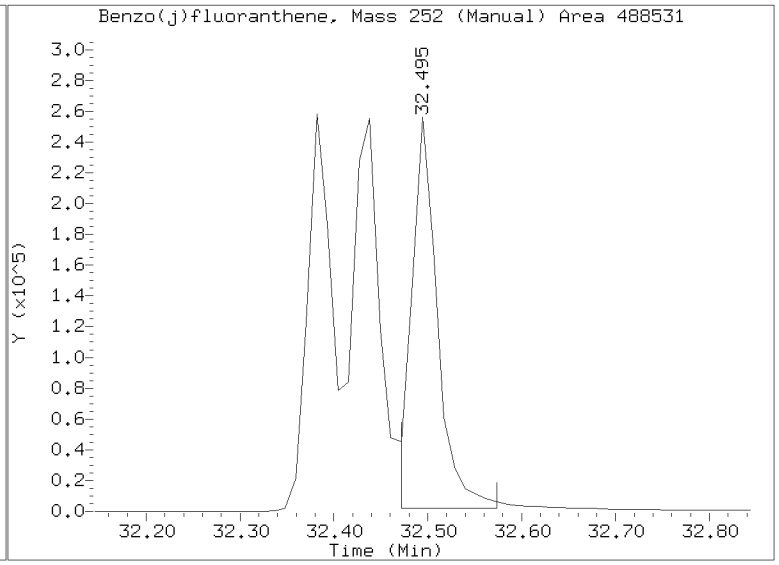












Quant Ion Manual Peak Adjustment Report

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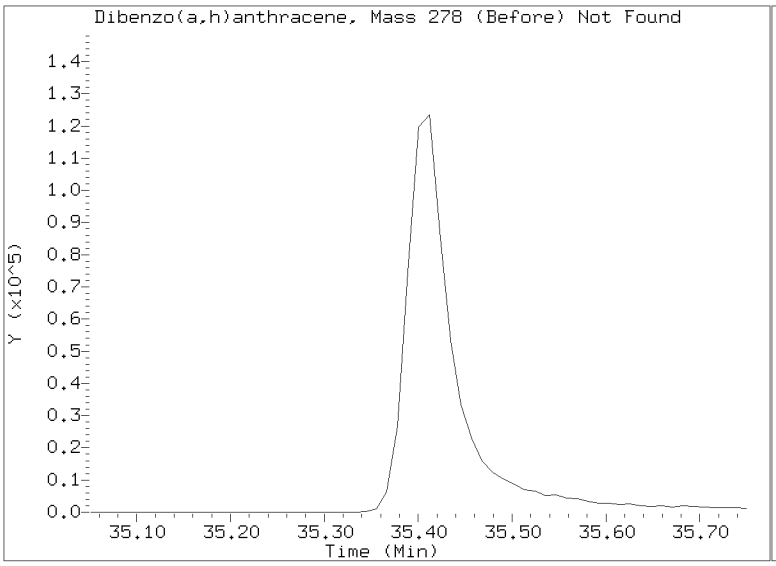
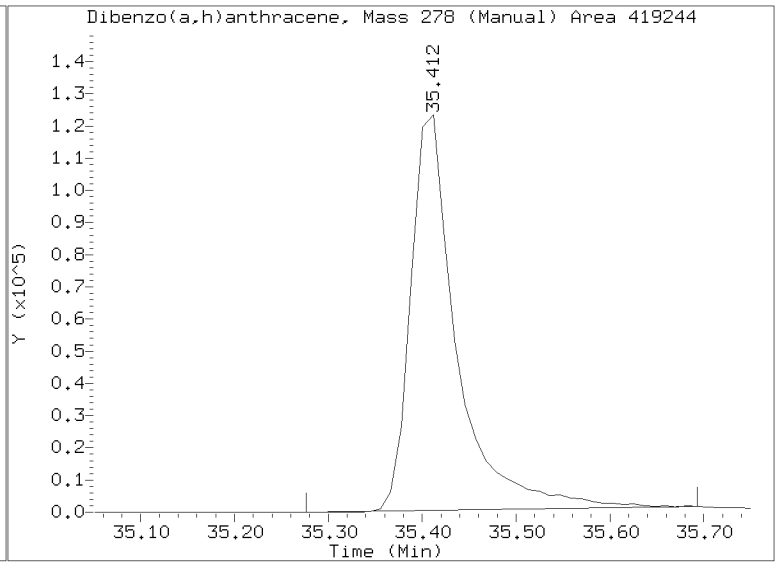
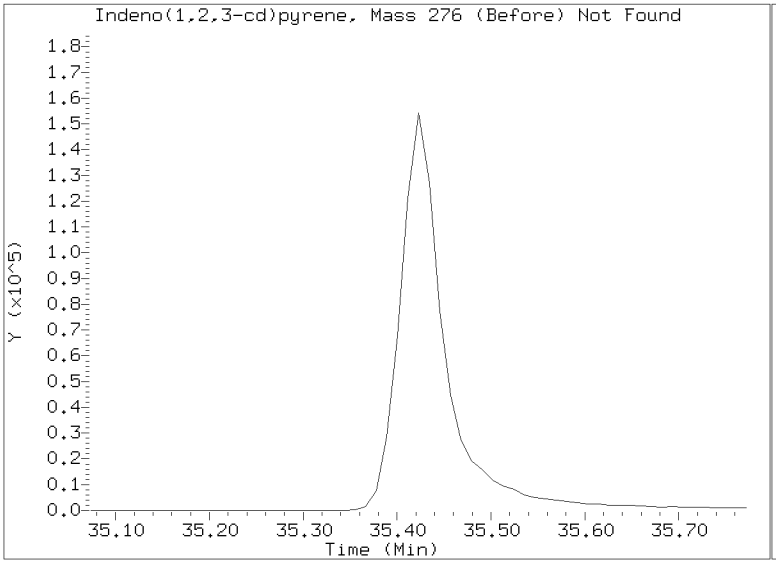
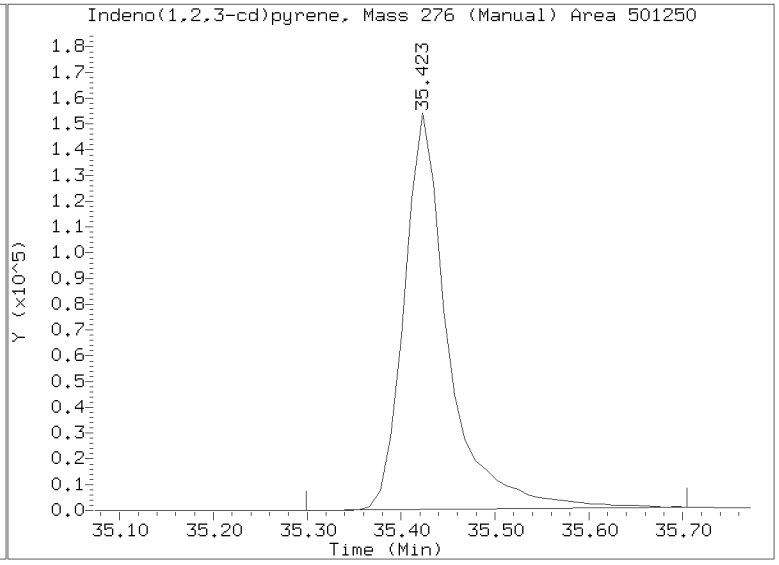
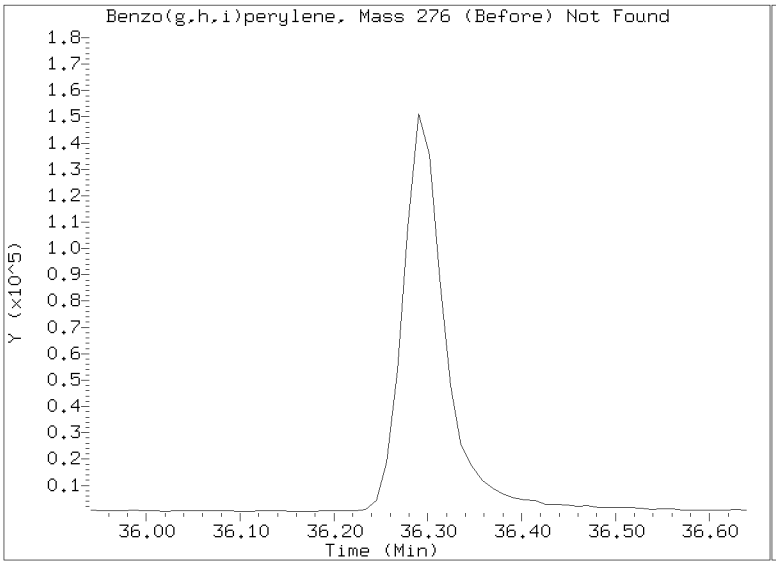
Injection Date: 01-MAY-2021 09:58
Lab ID:BJD0501-BS1 Client ID:
Report Date: 05/07/2021 10:17

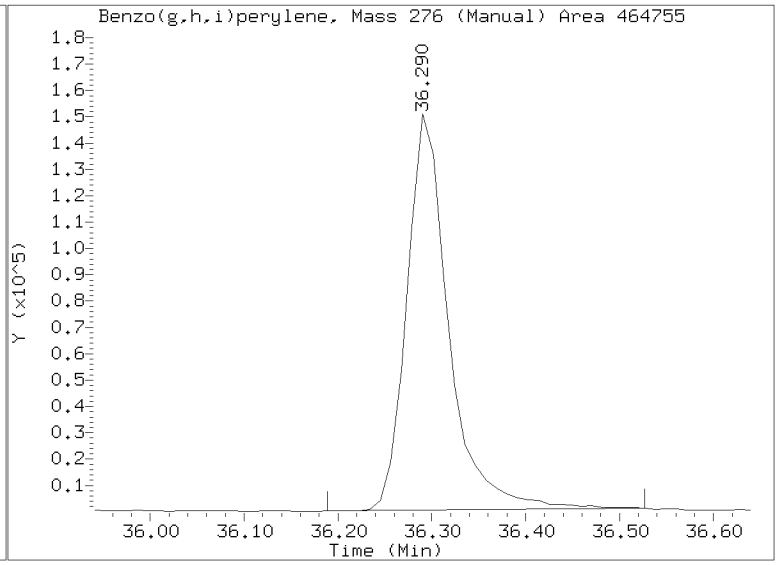












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Page 1

Date : 01-MAY-2021 10:46

Client ID:

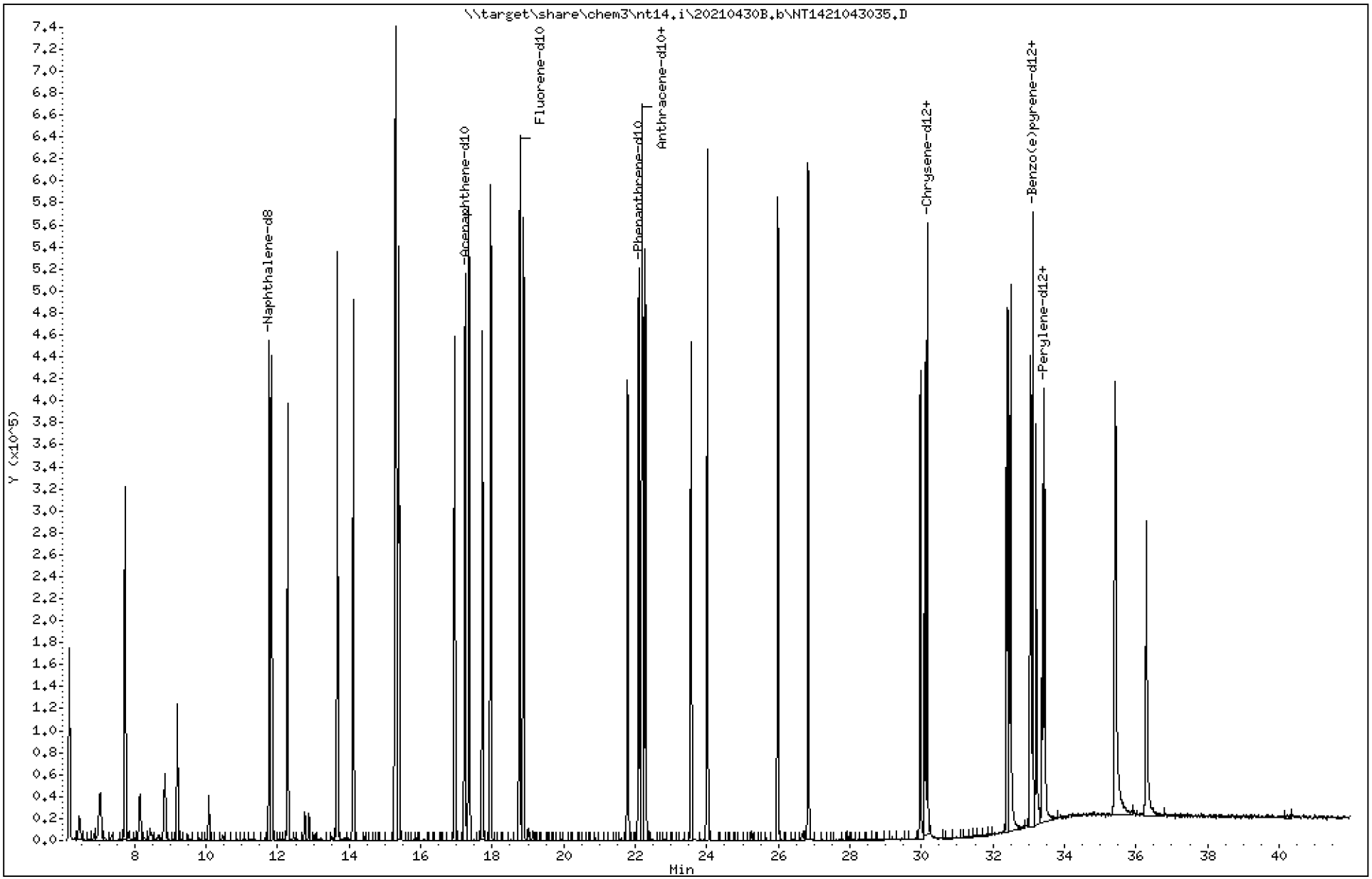
Instrument: nt14.i

Sample Info: BJD0501-BSD1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

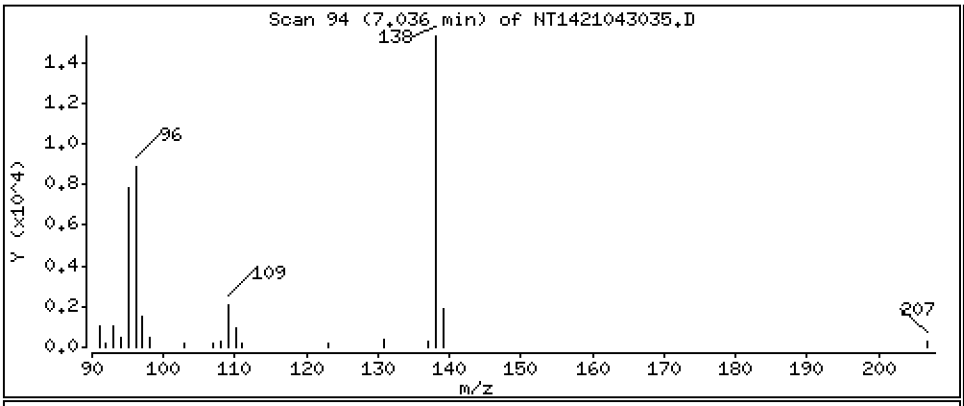
Operator: VTS

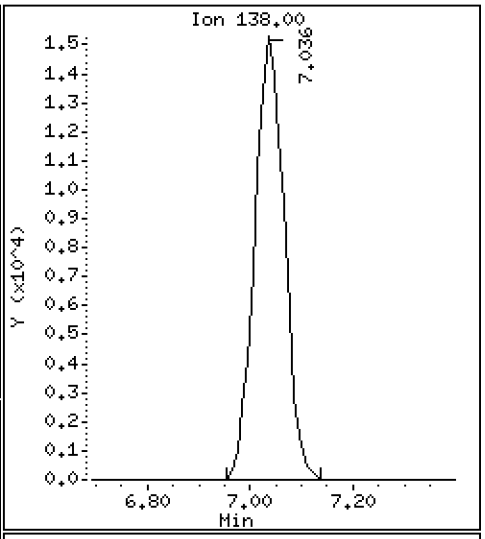
Column phase: Rxi-17Sil MS

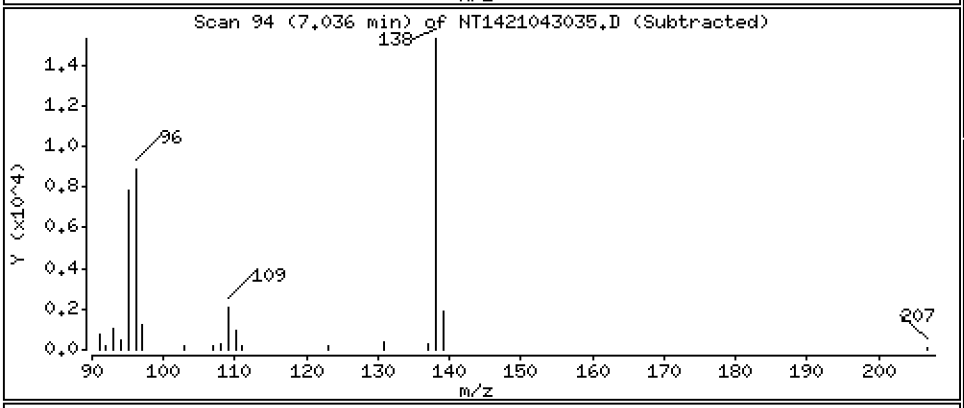
Column diameter: 0.25

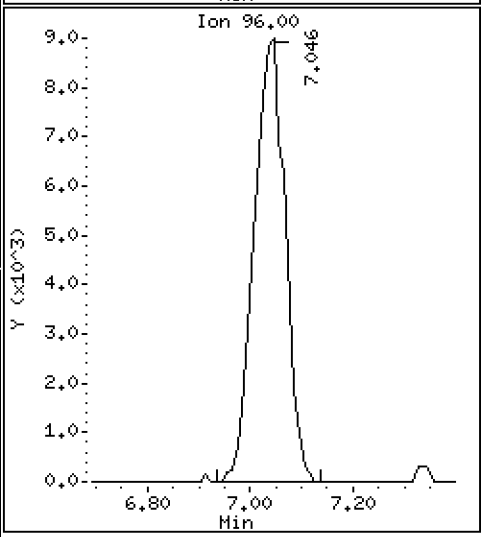
1 trans-Decalin

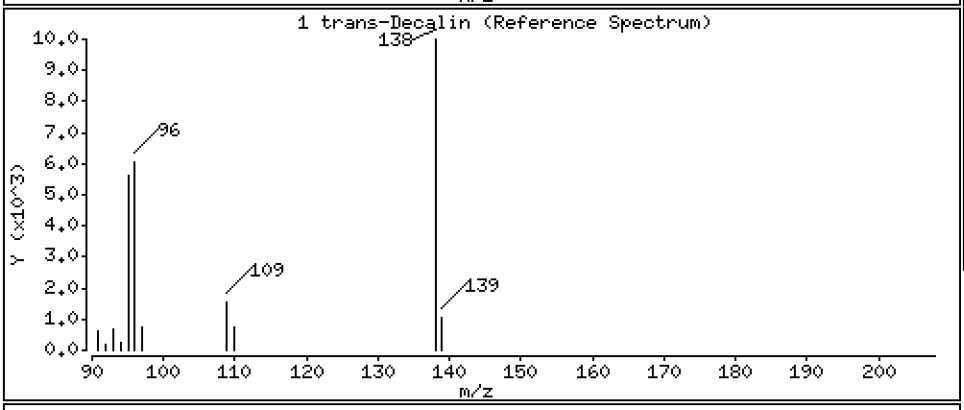
Concentration: 1.675 ug/mL

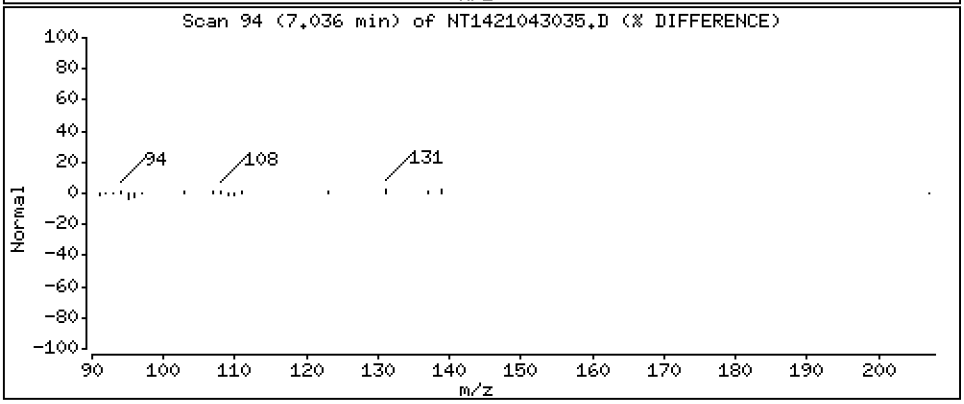












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

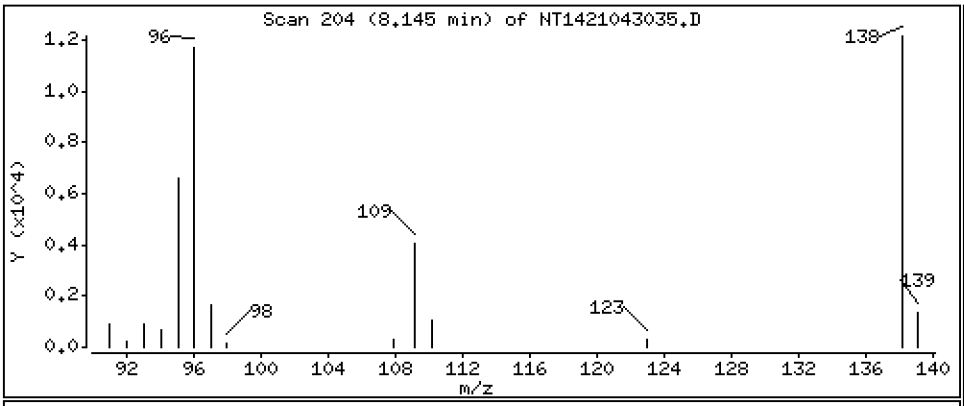
Operator: VTS

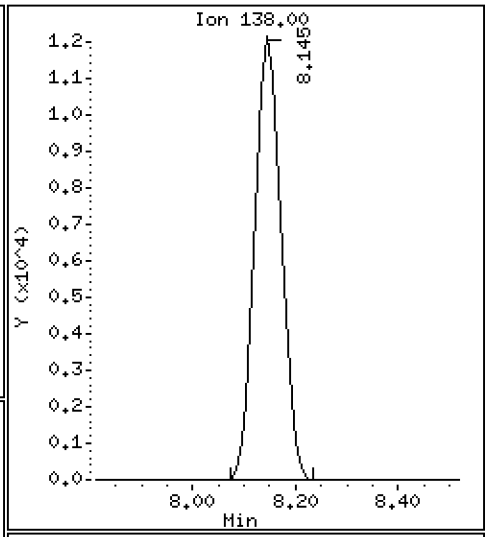
Column phase: Rxi-17Sil MS

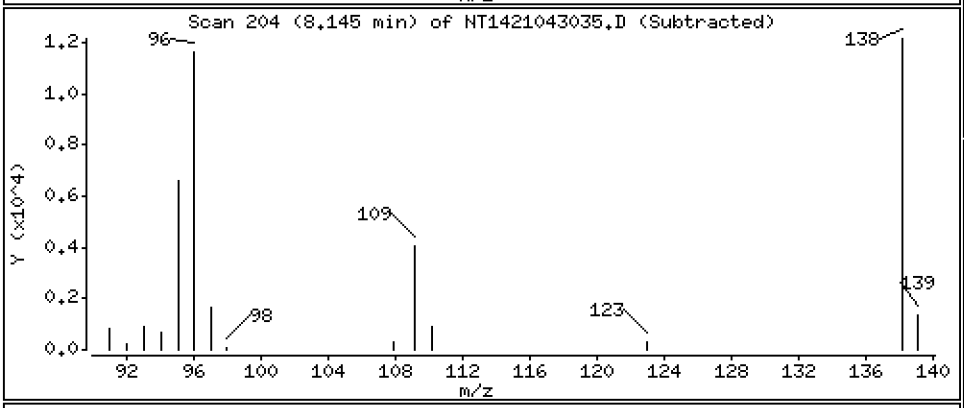
Column diameter: 0.25

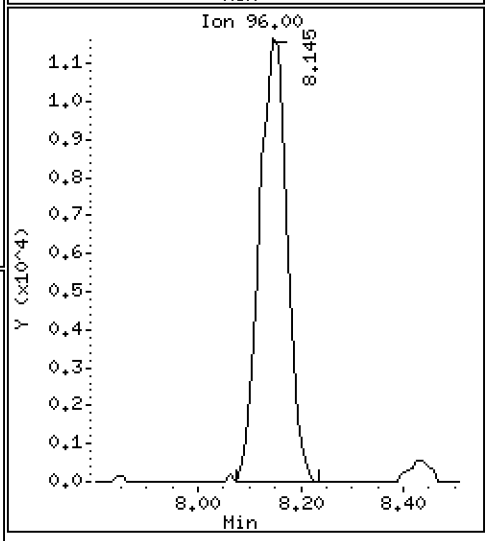
2 cis-Decalin

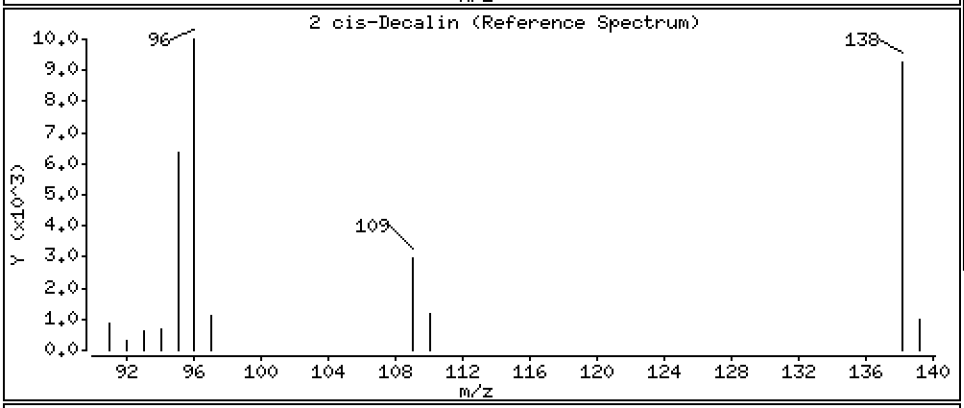
Concentration: 1.738 ug/mL

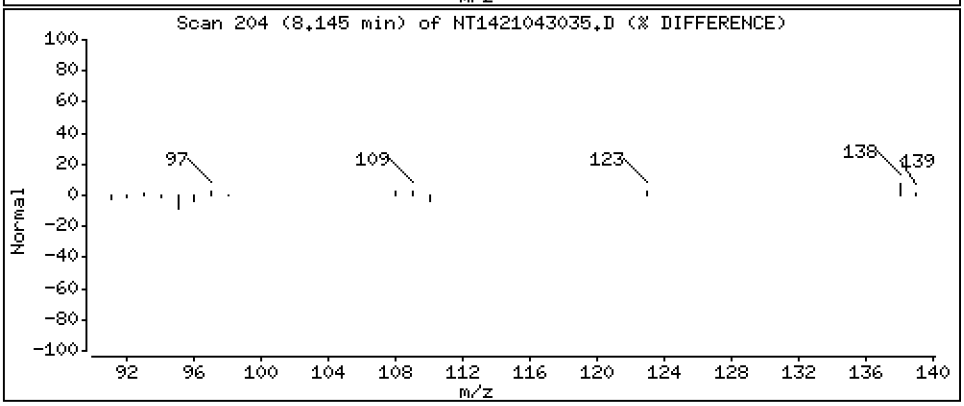












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

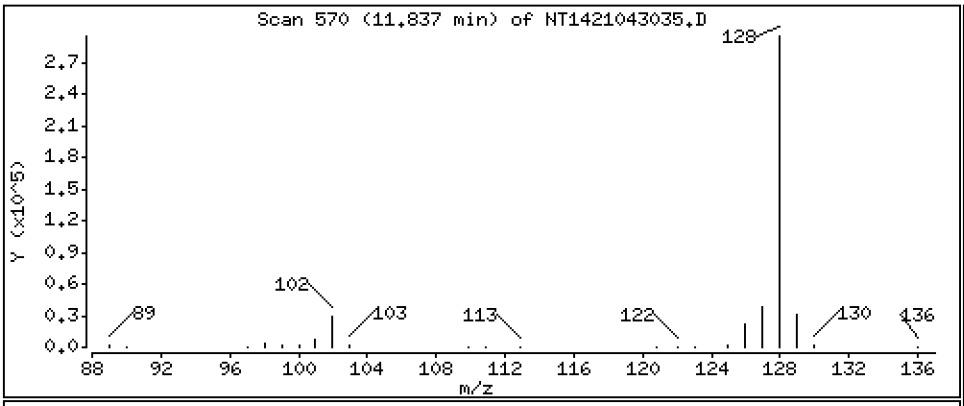
Operator: VTS

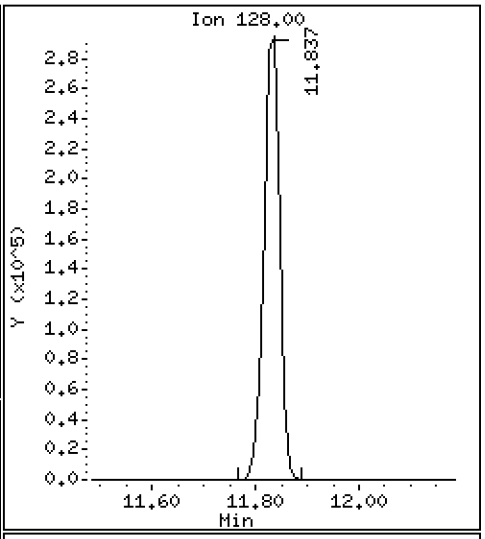
Column phase: Rxi-17Sil MS

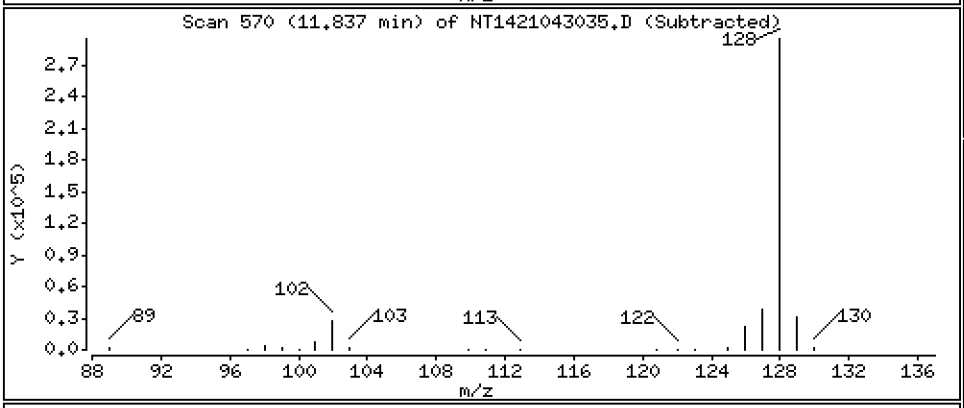
Column diameter: 0.25

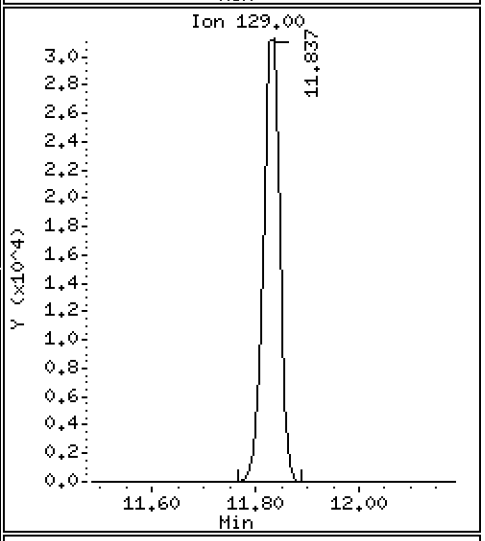
7 Naphthalene

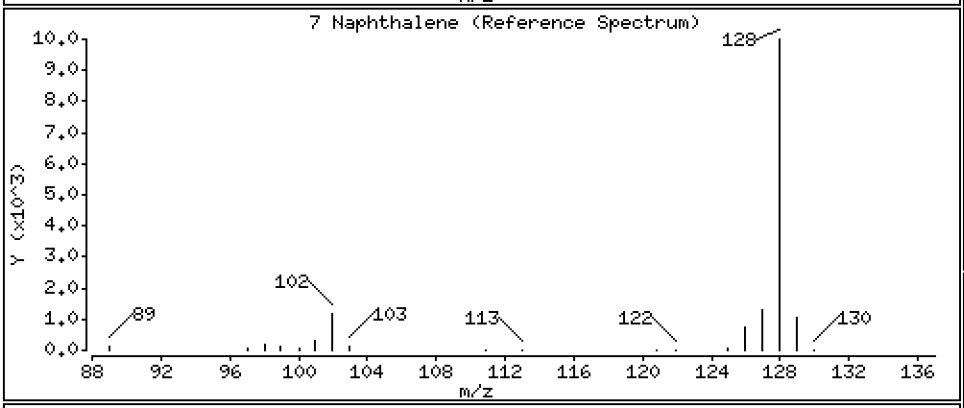
Concentration: 2.238 ug/mL

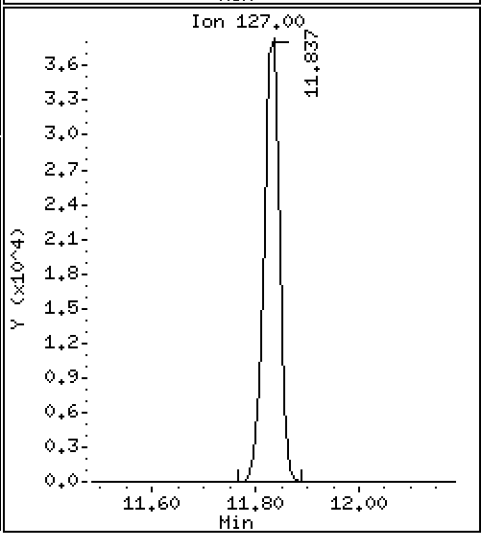


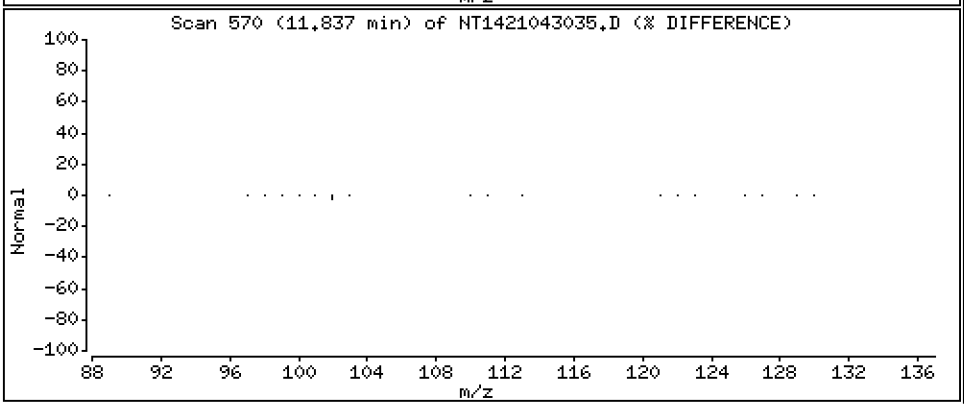












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

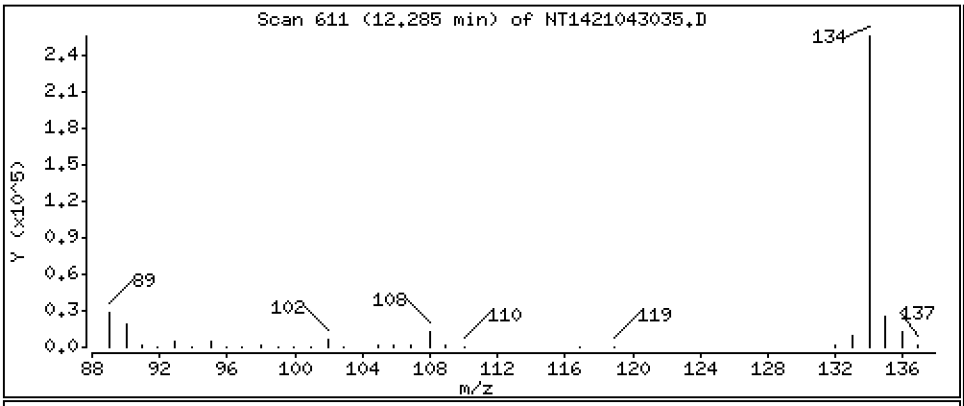
Operator: VTS

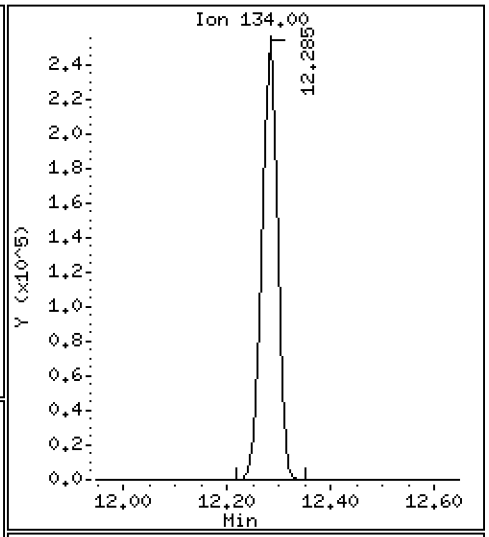
Column phase: Rxi-17Sil MS

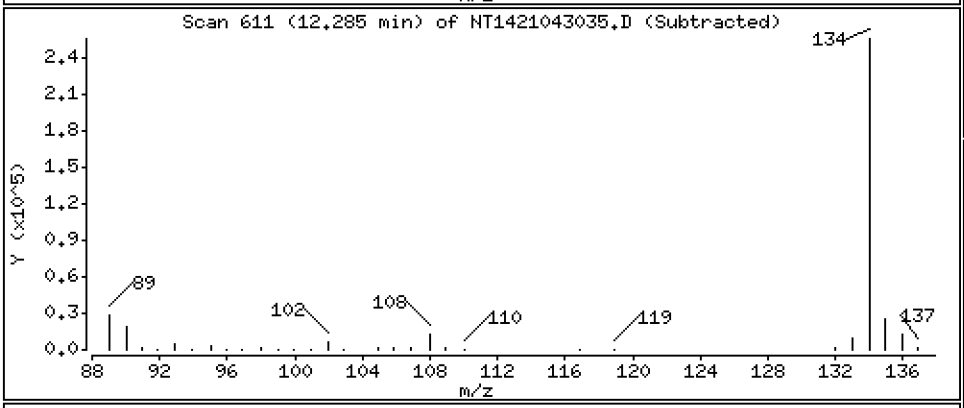
Column diameter: 0.25

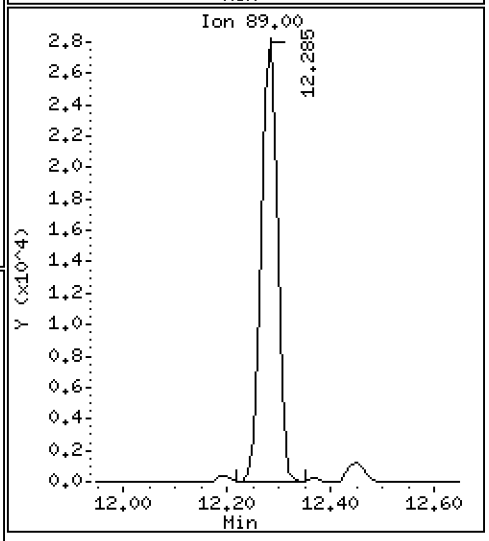
12 Benzo(b)thiophene

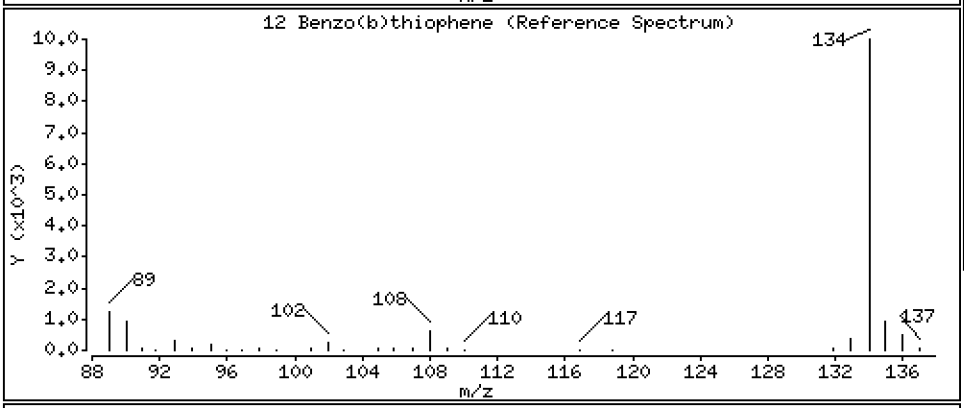
Concentration: 2.320 ug/mL

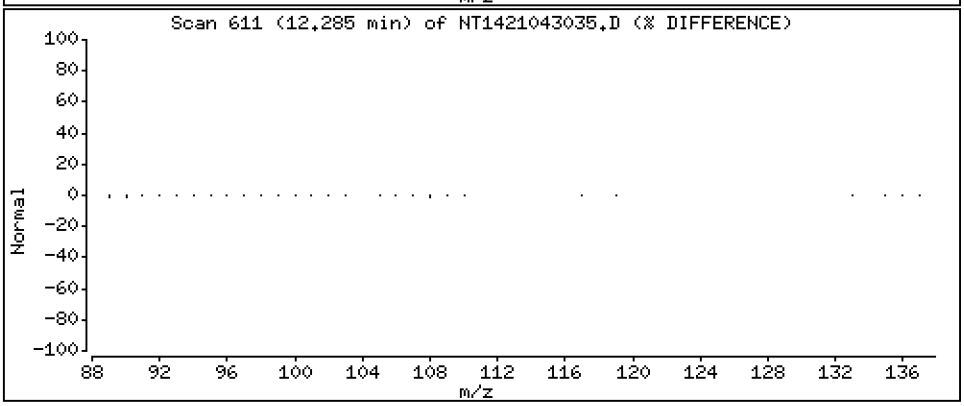












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

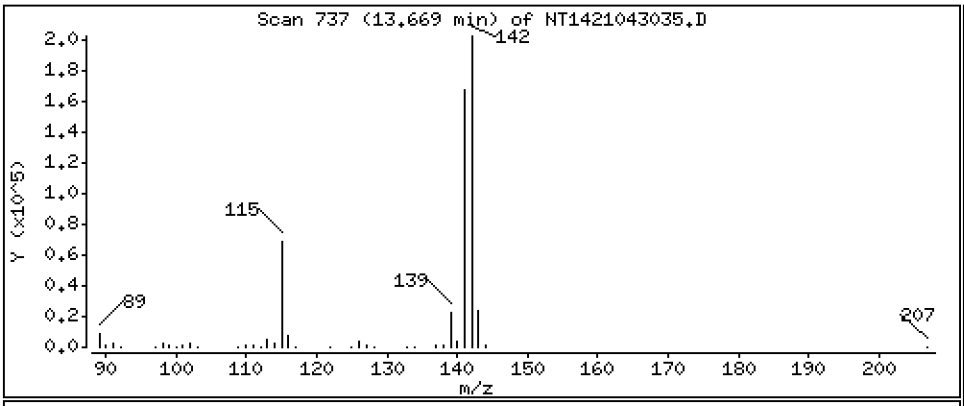
Operator: VTS

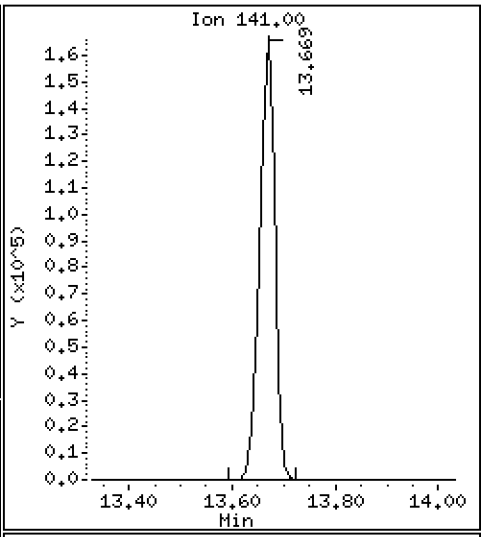
Column phase: Rxi-17Sil MS

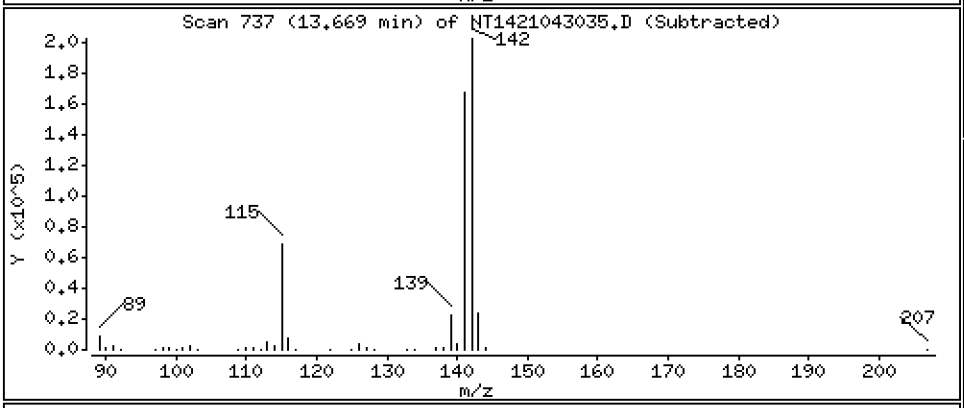
Column diameter: 0.25

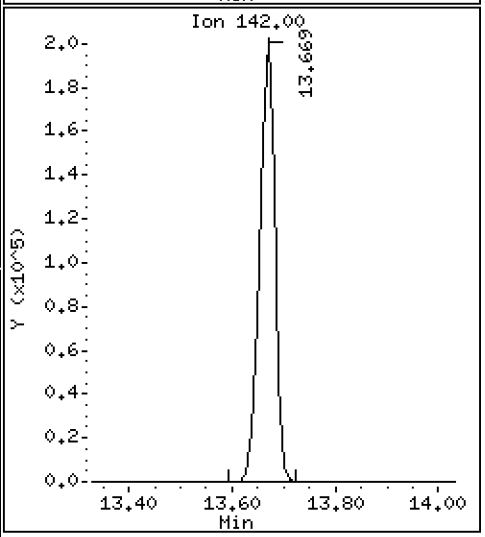
16 2-Methylnaphthalene

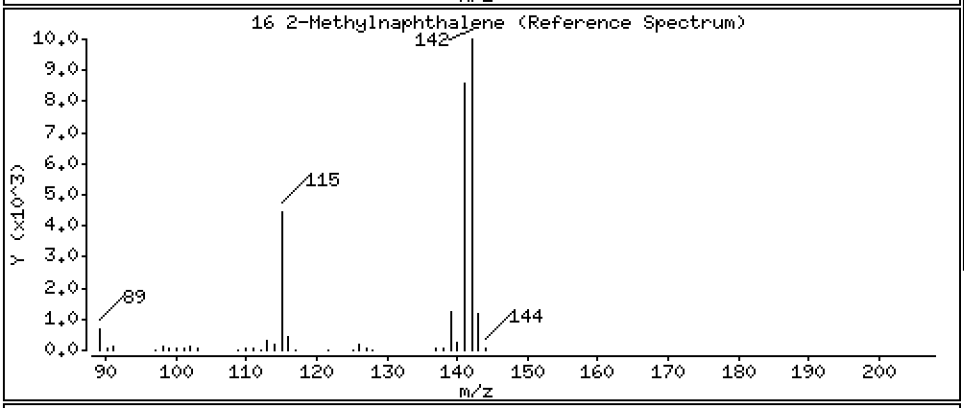
Concentration: 2.309 ug/mL

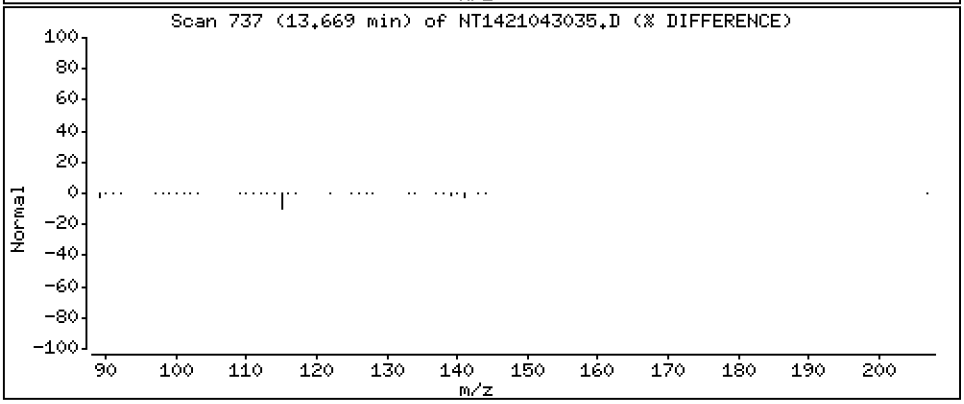












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

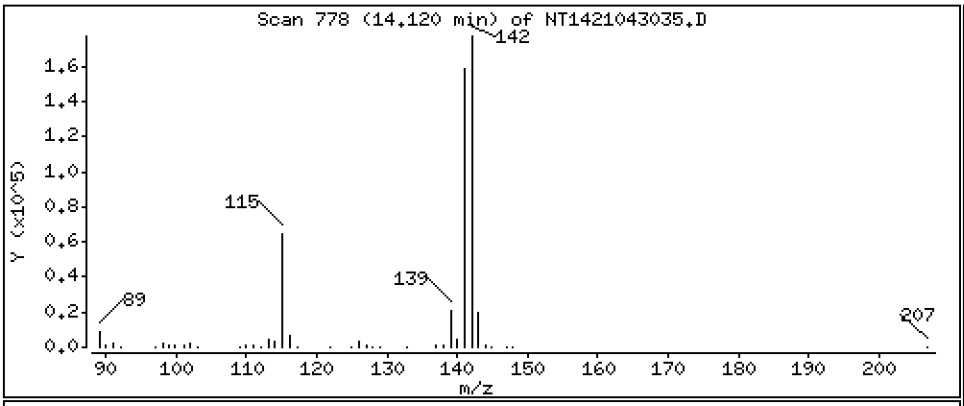
Operator: VTS

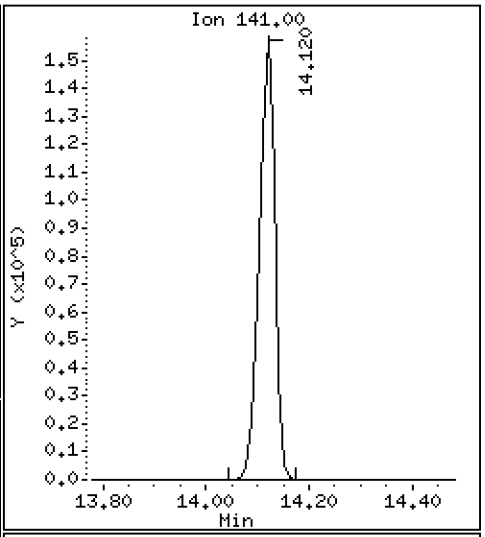
Column phase: Rxi-17Sil MS

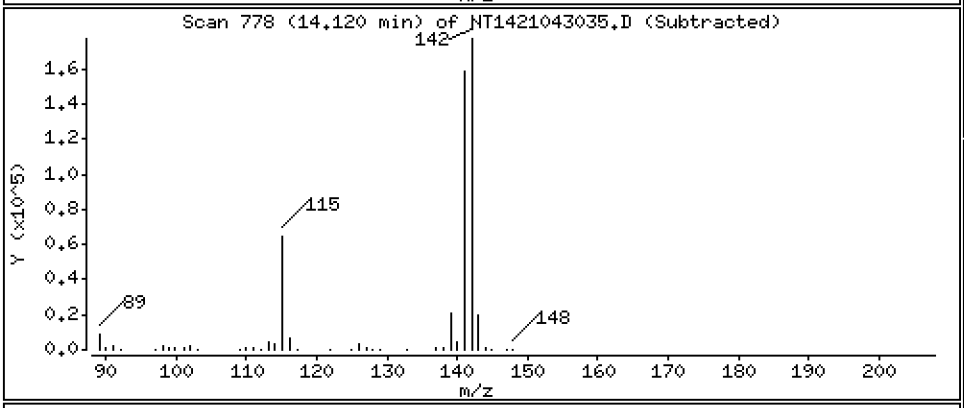
Column diameter: 0.25

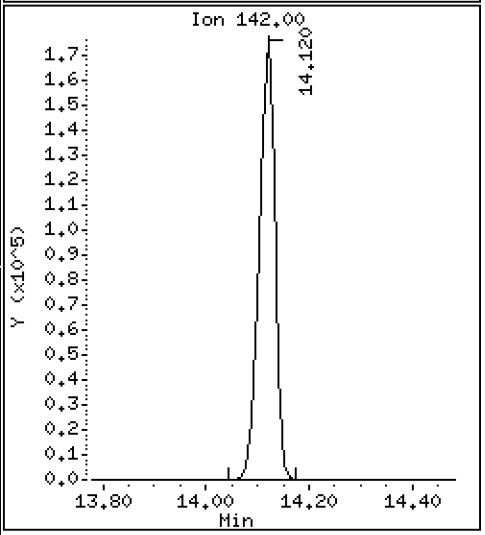
17 1-methylnaphthalene

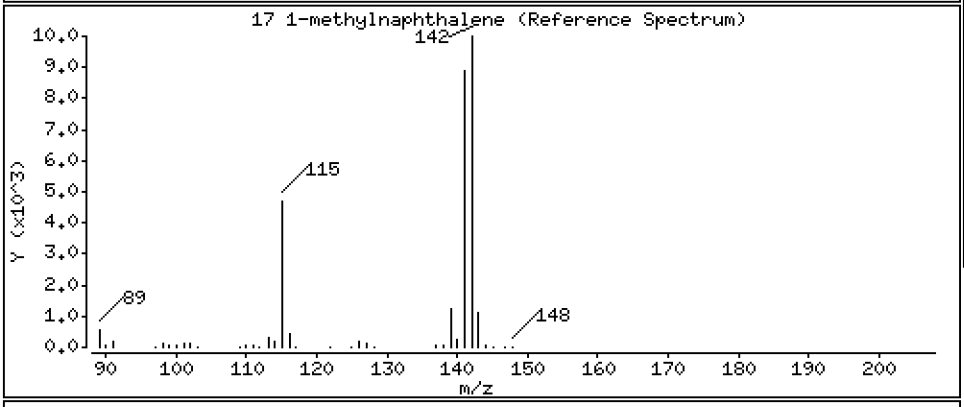
Concentration: 2.372 ug/mL

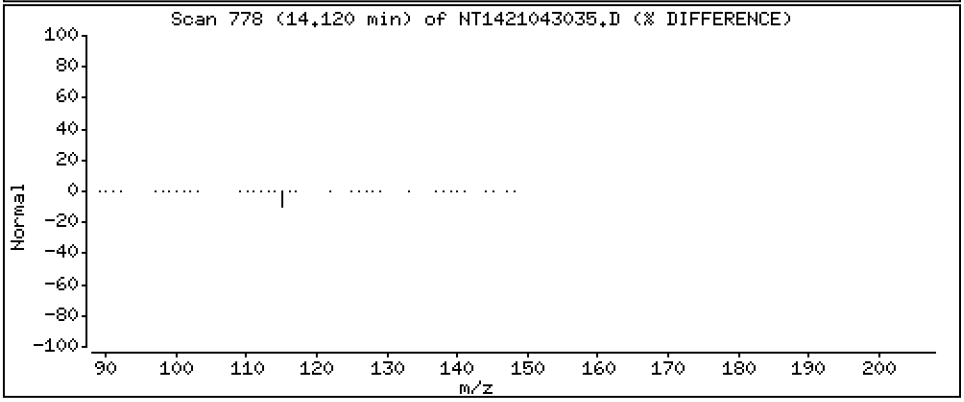












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

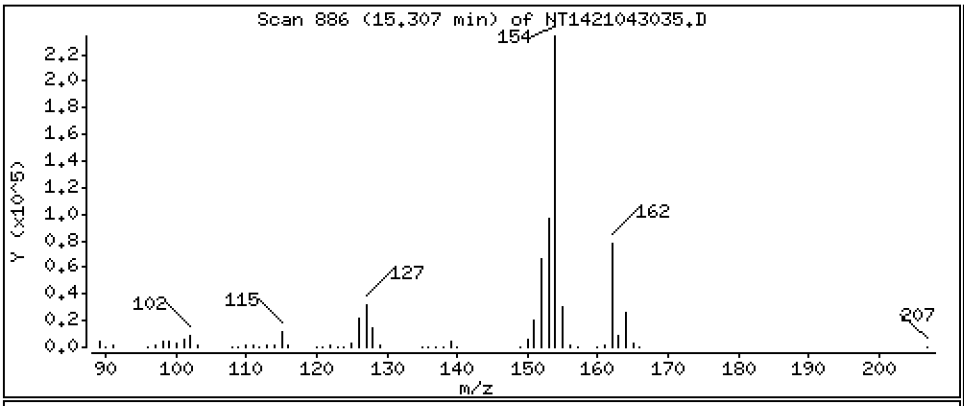
Operator: VTS

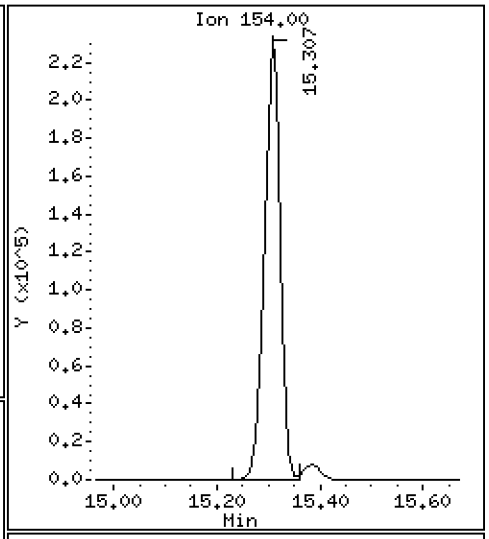
Column phase: Rxi-17Sil MS

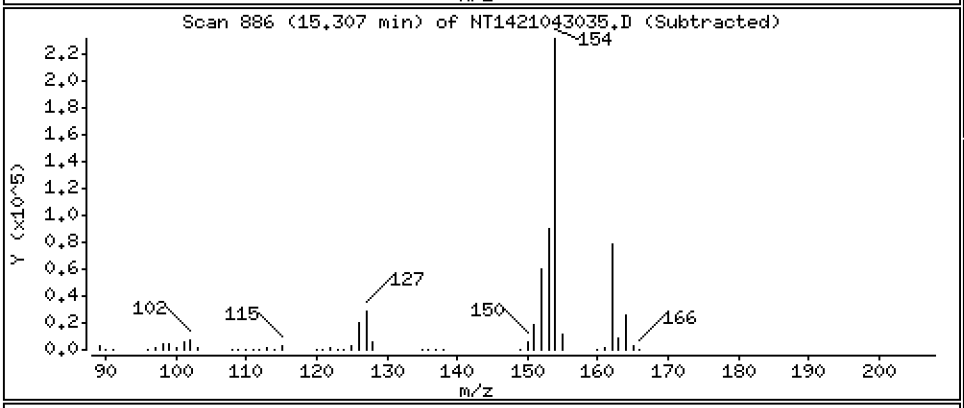
Column diameter: 0.25

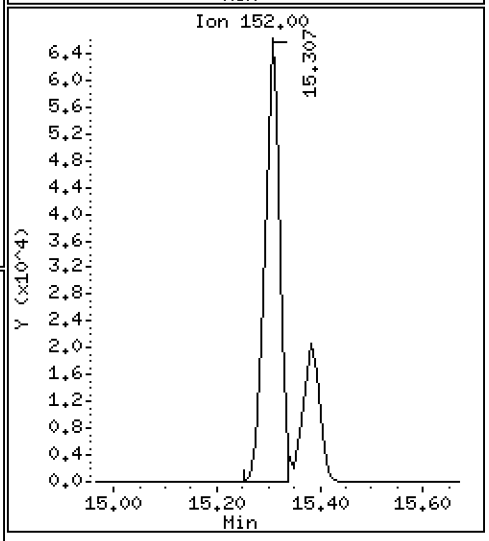
18 Biphenyl

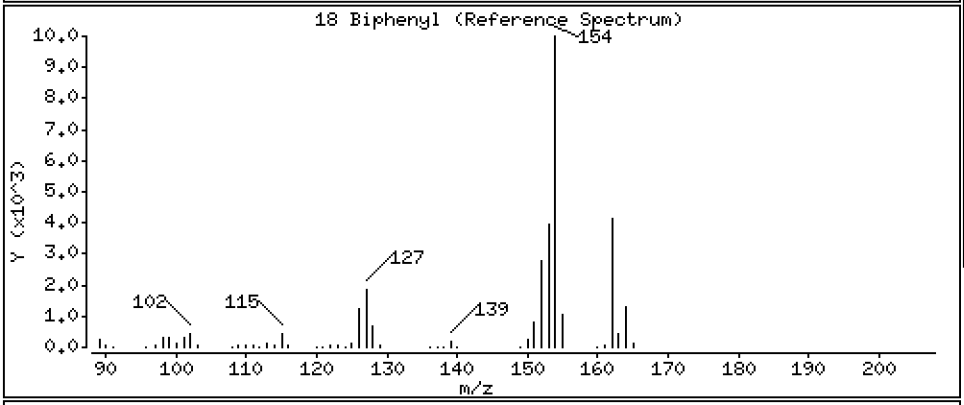
Concentration: 2.425 ug/mL

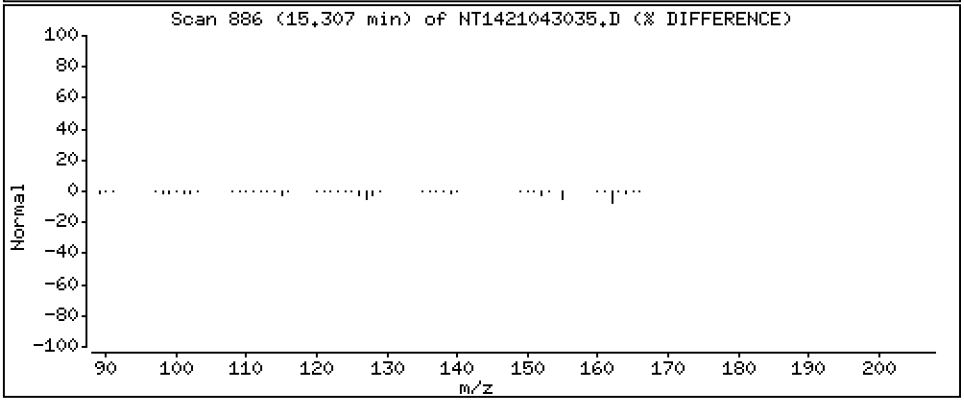












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

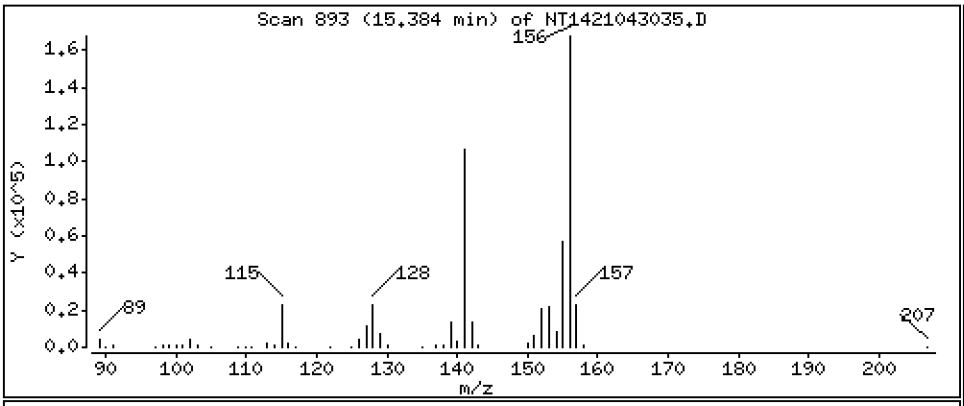
Operator: VTS

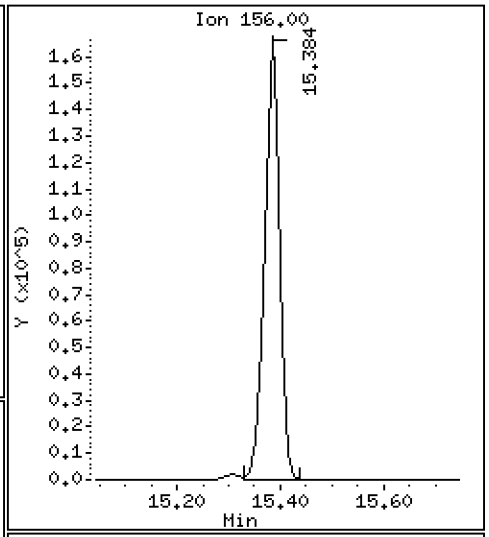
Column phase: Rxi-17Sil MS

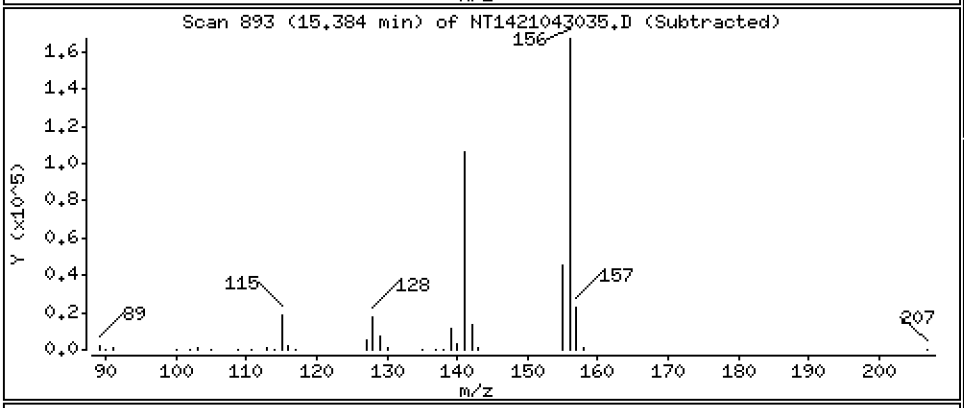
Column diameter: 0.25

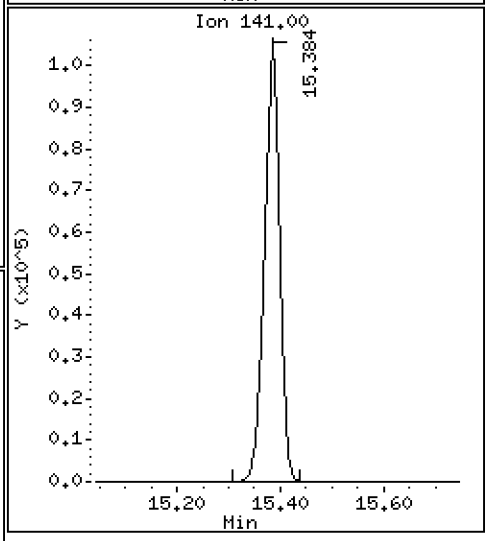
19 2,6-Dimethylnaphthalene

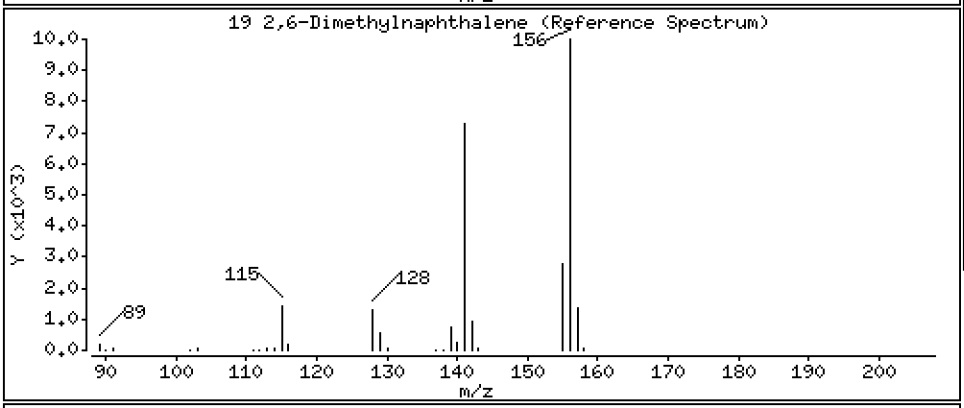
Concentration: 2.380 ug/mL

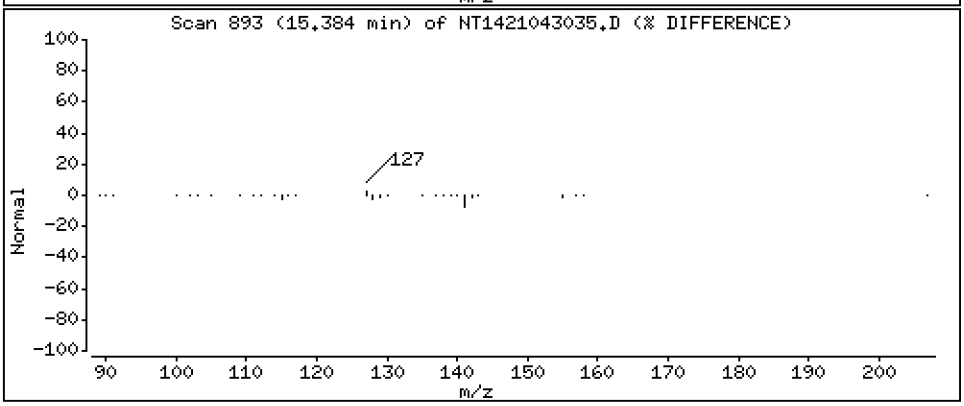












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

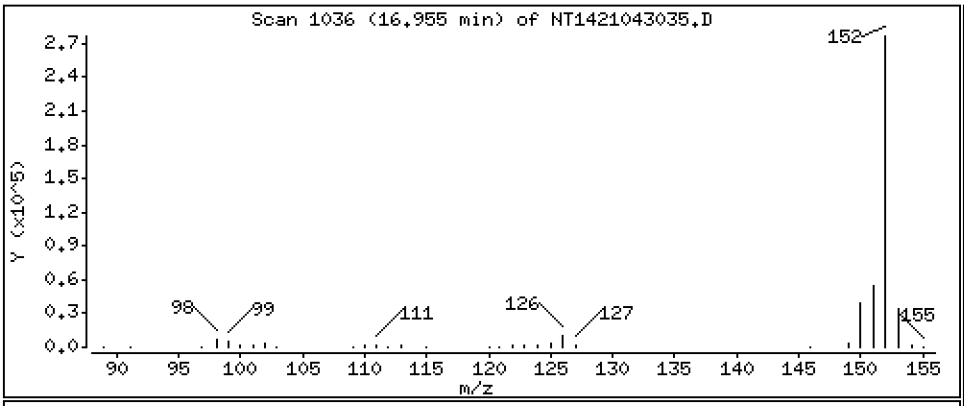
Operator: VTS

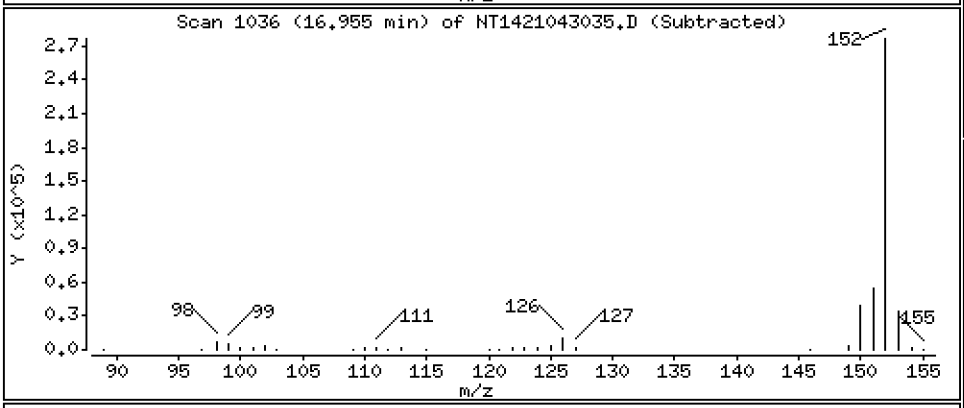
Column phase: Rxi-17Sil MS

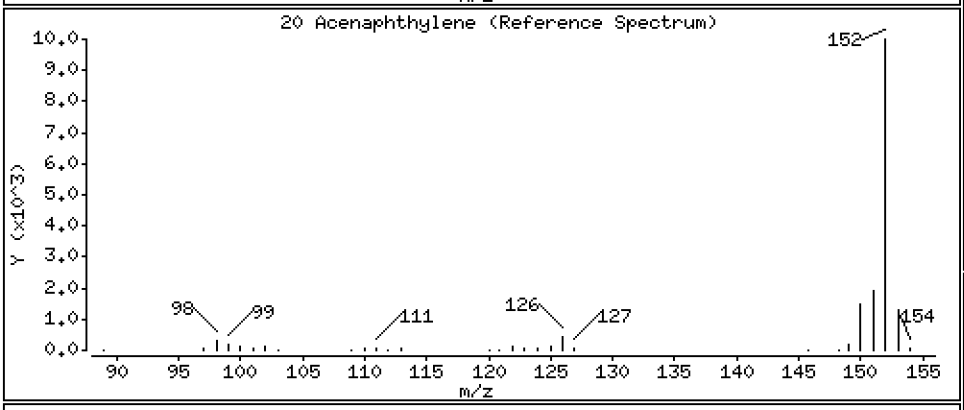
Column diameter: 0.25

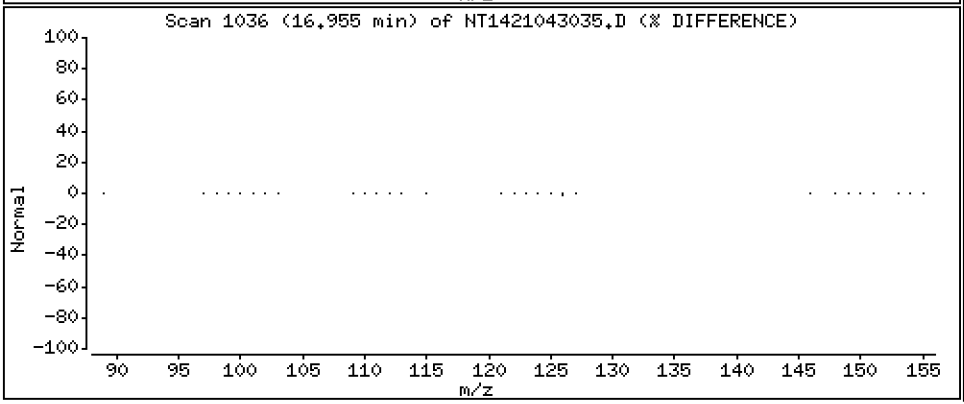
20 Acenaphthylene

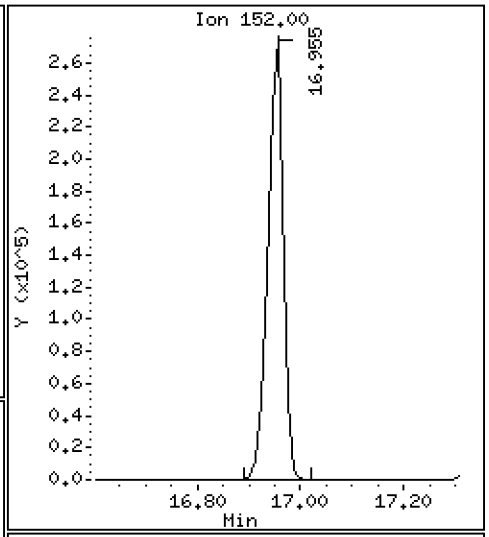
Concentration: 2.566 ug/mL

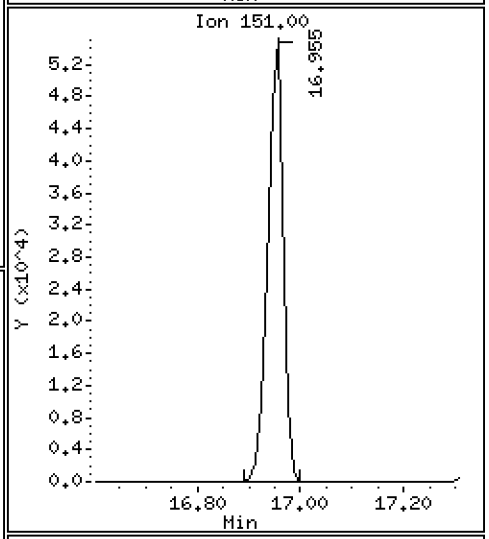


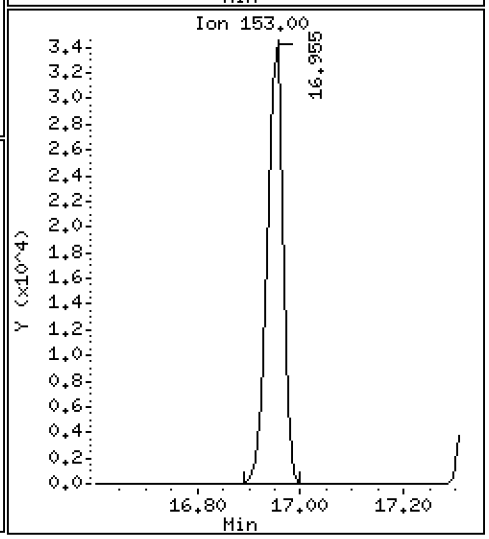












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

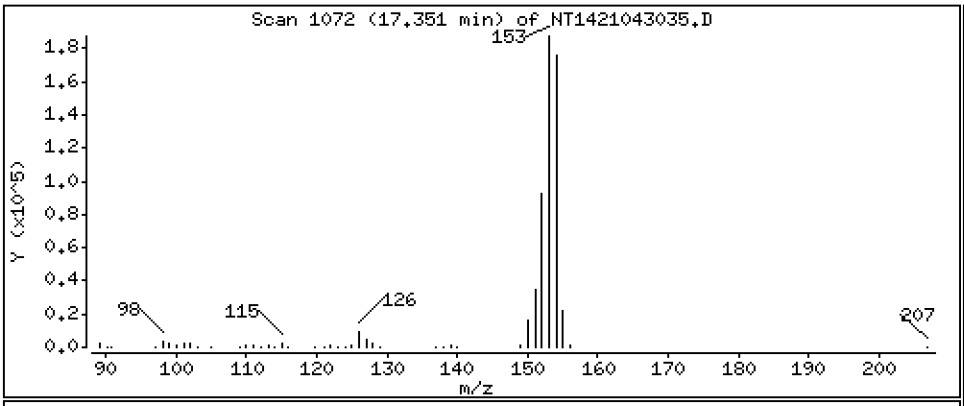
Operator: VTS

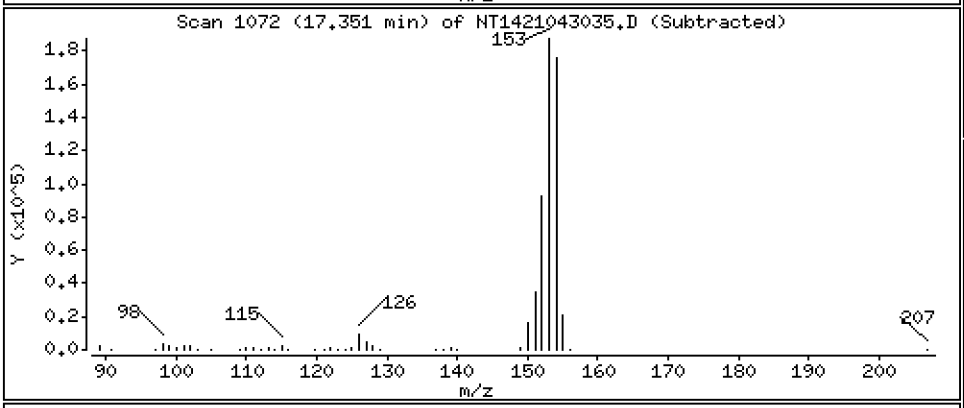
Column phase: Rxi-17Sil MS

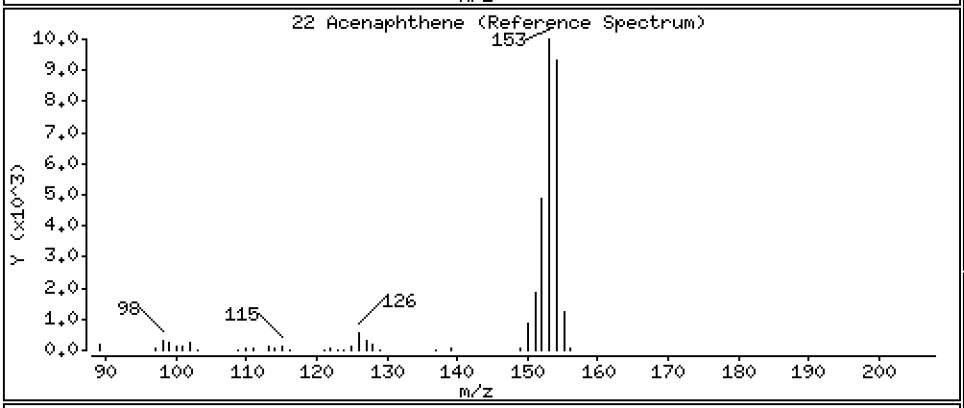
Column diameter: 0.25

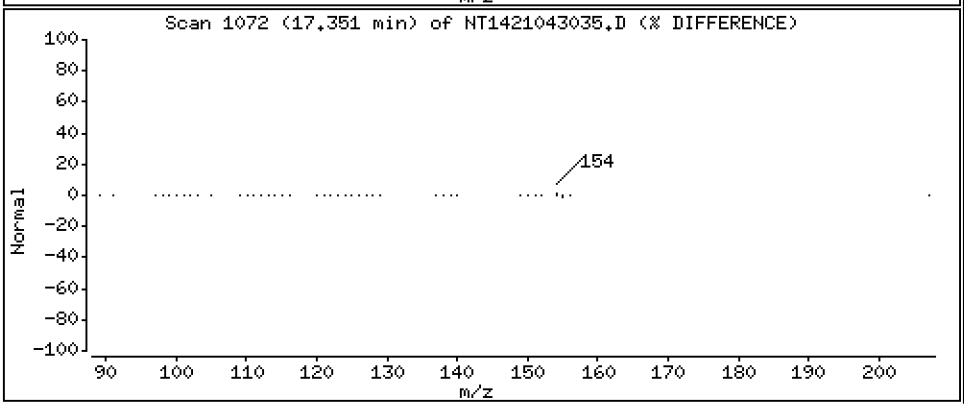
22 Acenaphthene

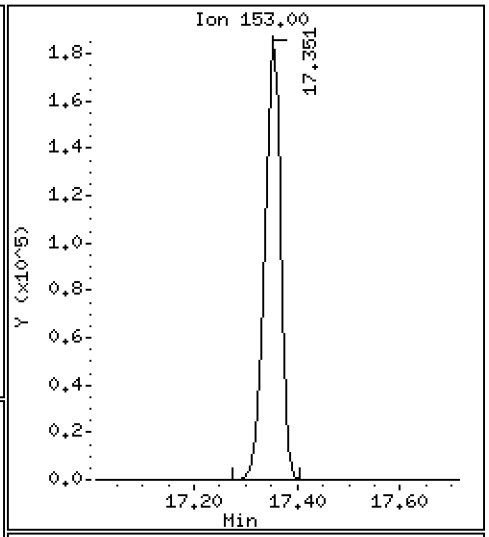
Concentration: 2.745 ug/mL

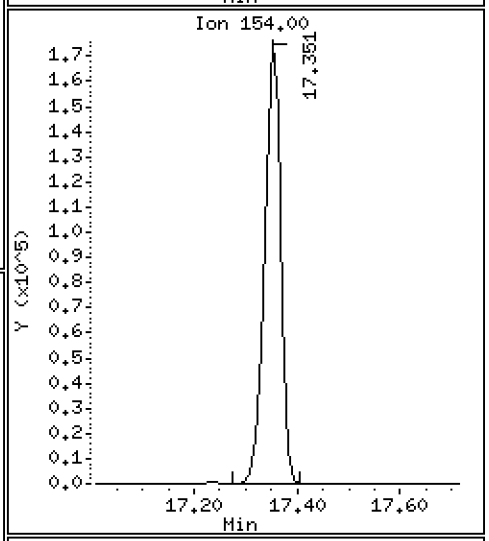


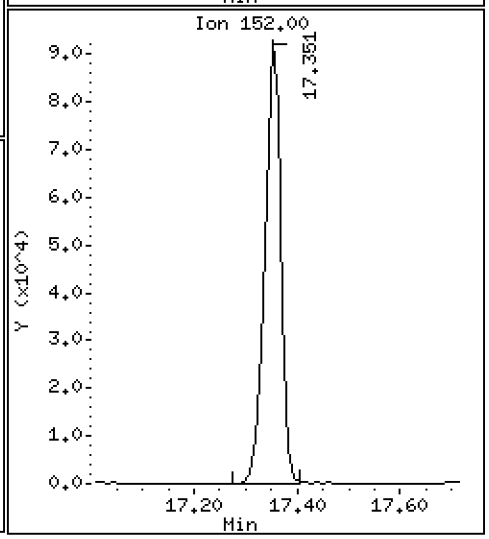












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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

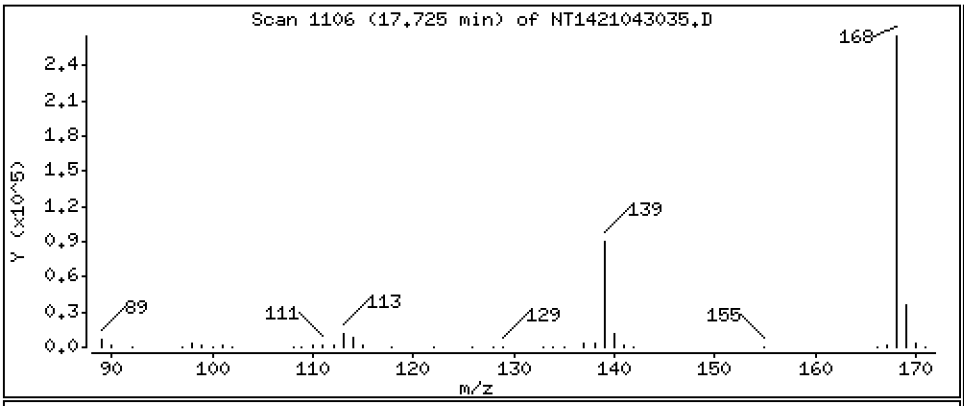
Operator: VTS

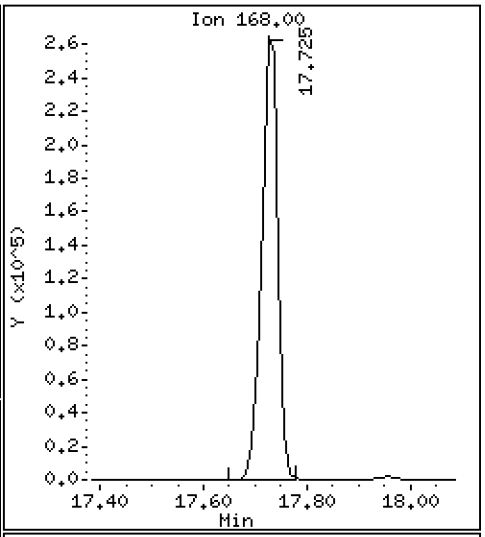
Column phase: Rxi-17Sil MS

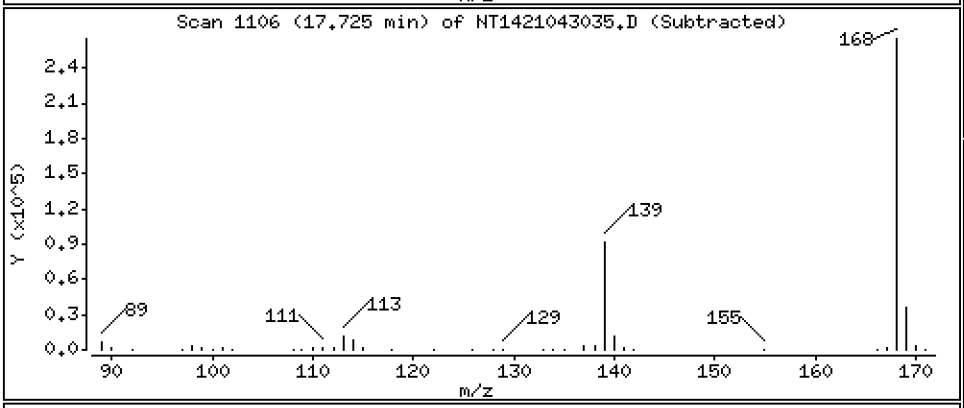
Column diameter: 0.25

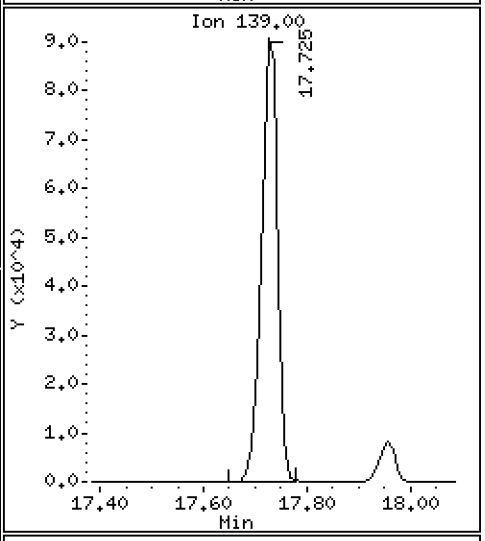
23 Dibenzofuran

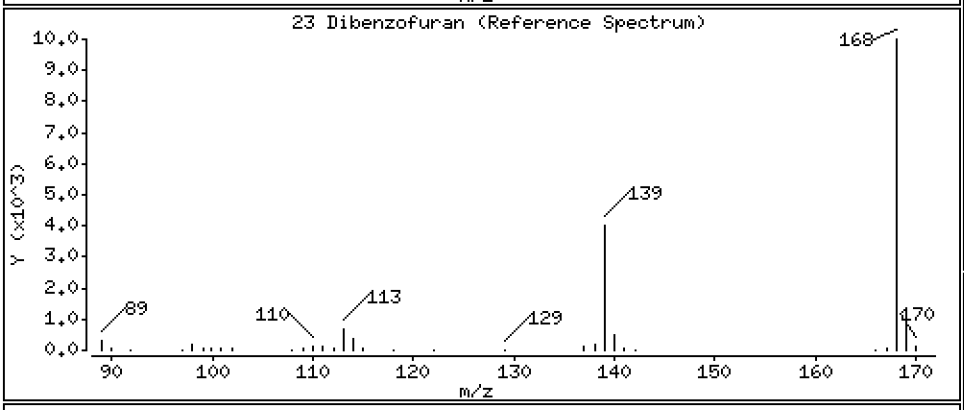
Concentration: 2.627 ug/mL

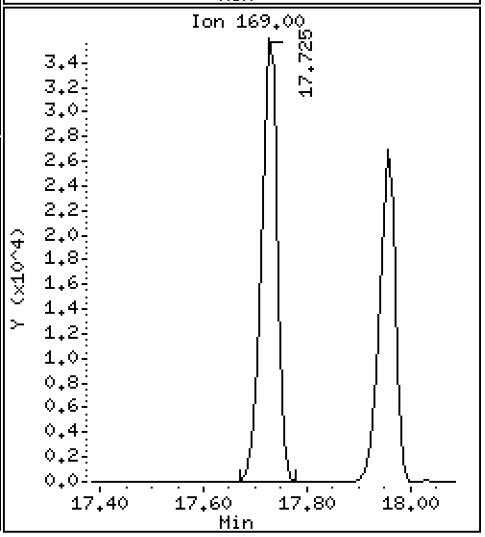


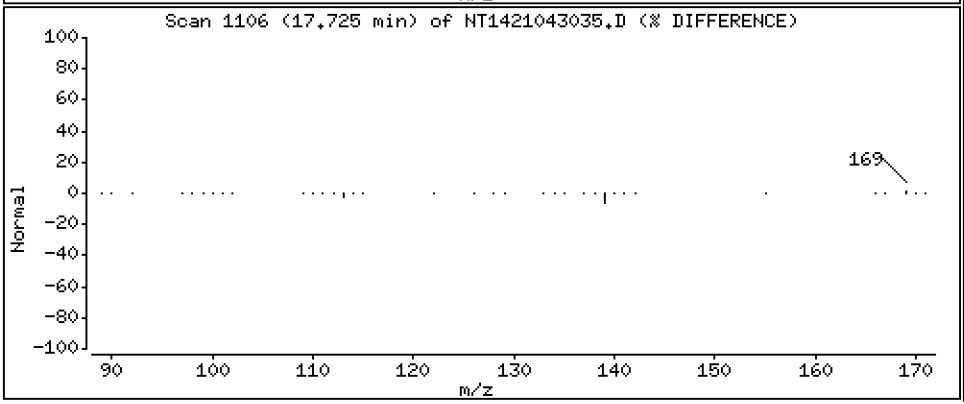












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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

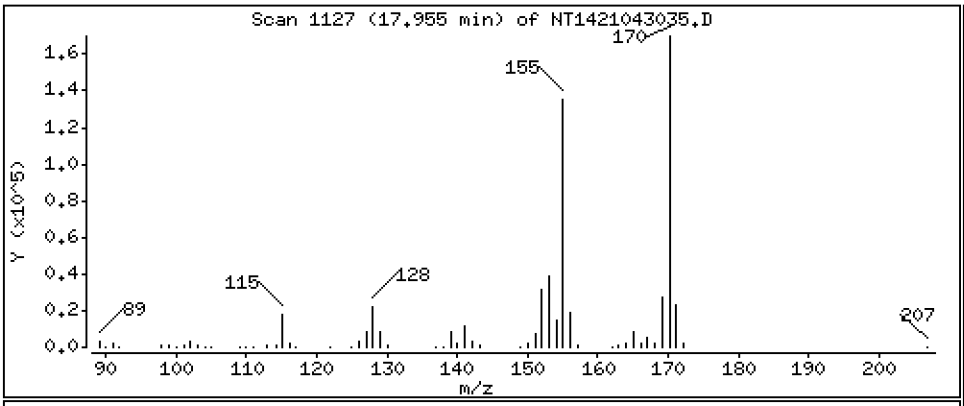
Operator: VTS

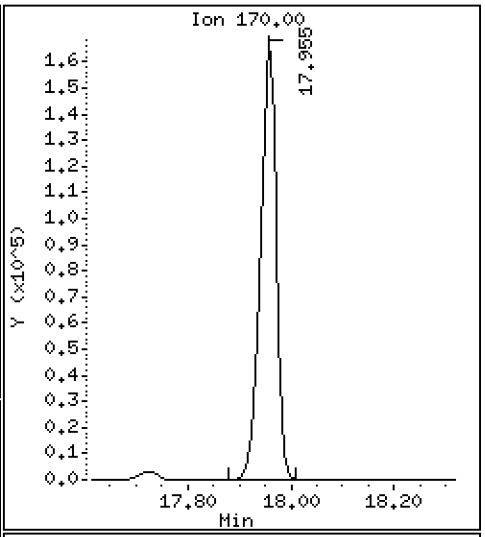
Column phase: Rxi-17Sil MS

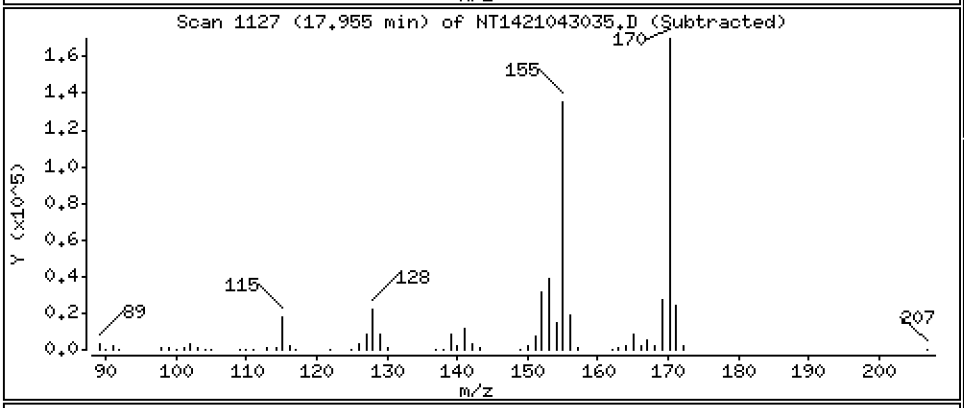
Column diameter: 0.25

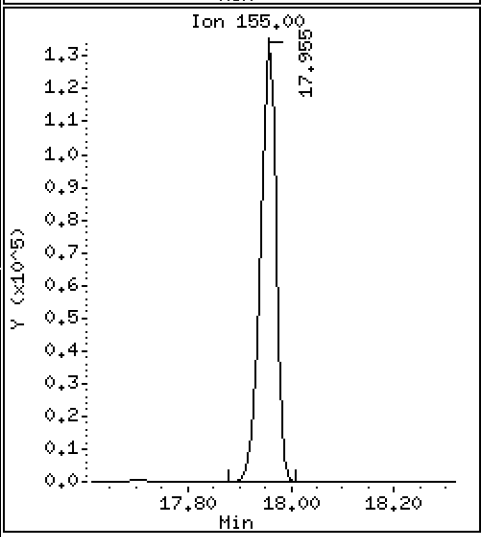
24 1,6,7-Trimethylnaphthalene

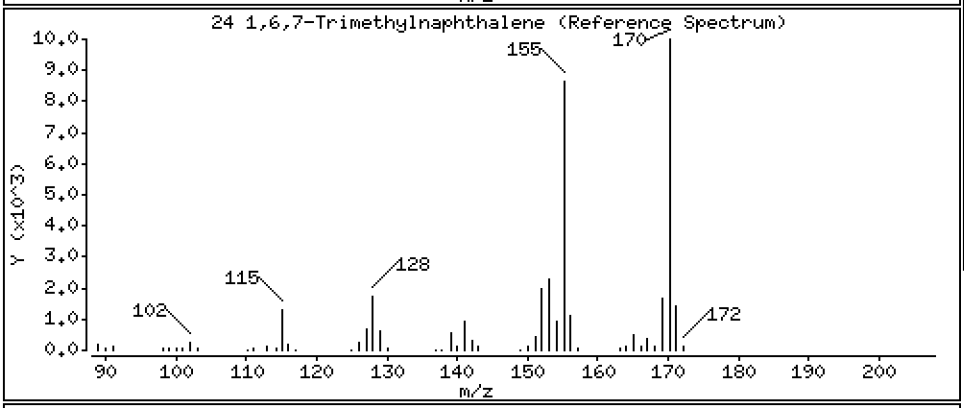
Concentration: 2.803 ug/mL

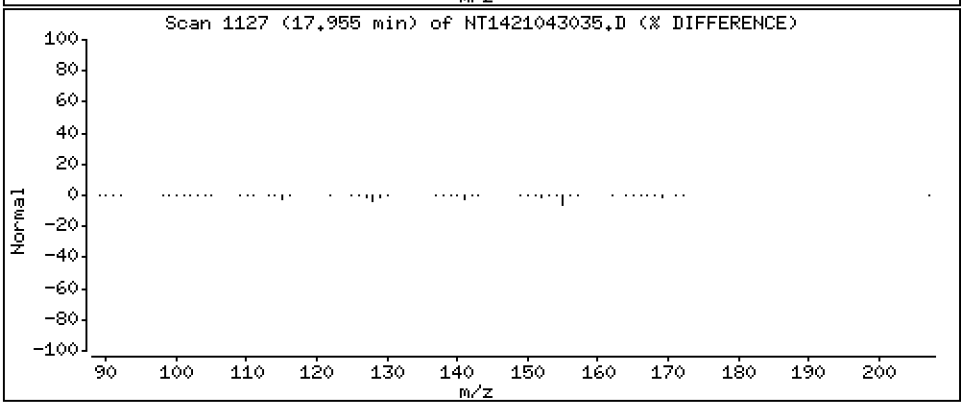












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

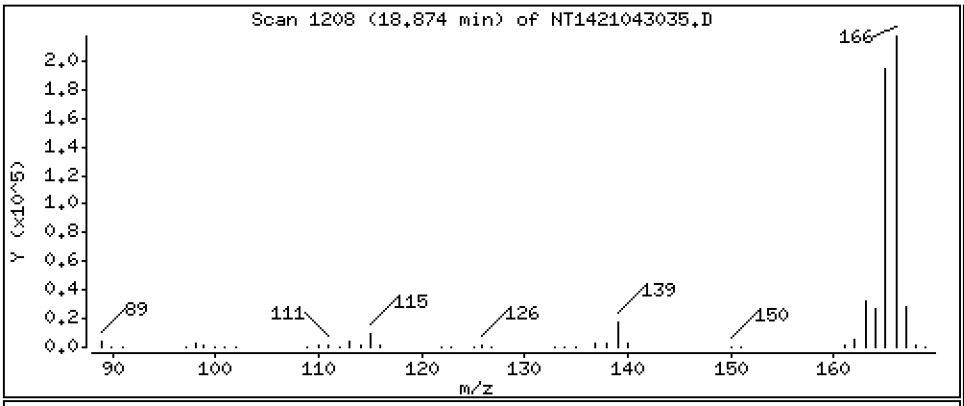
Operator: VTS

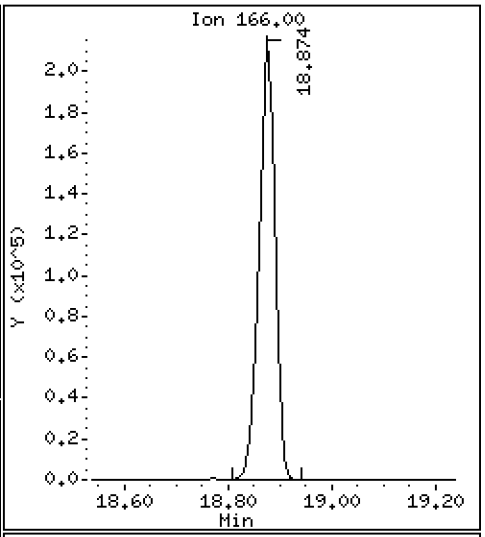
Column phase: Rxi-17Sil MS

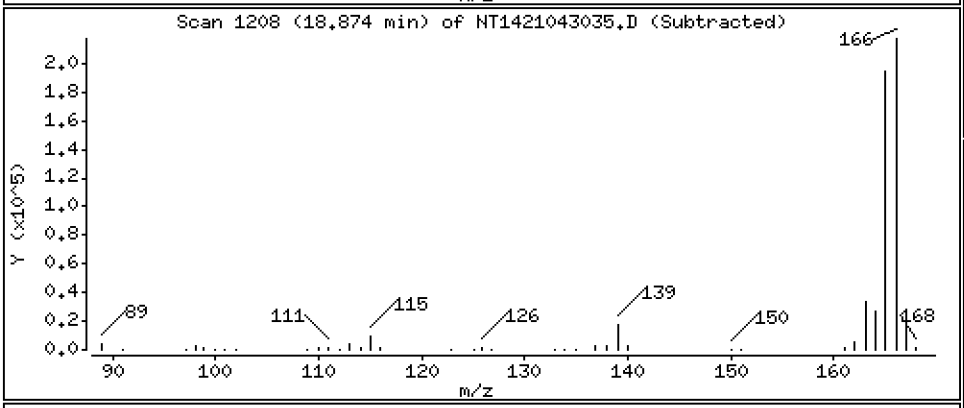
Column diameter: 0.25

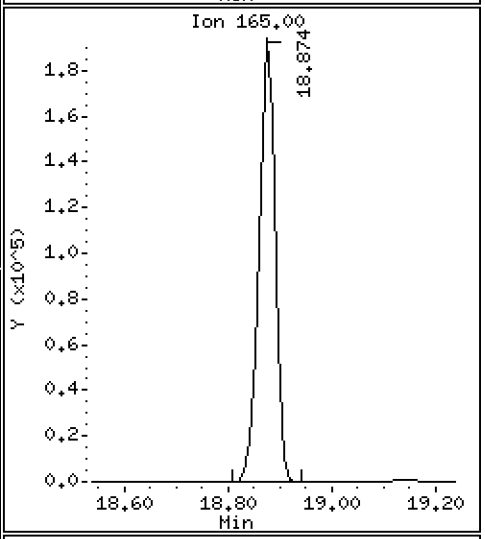
26 Fluorene

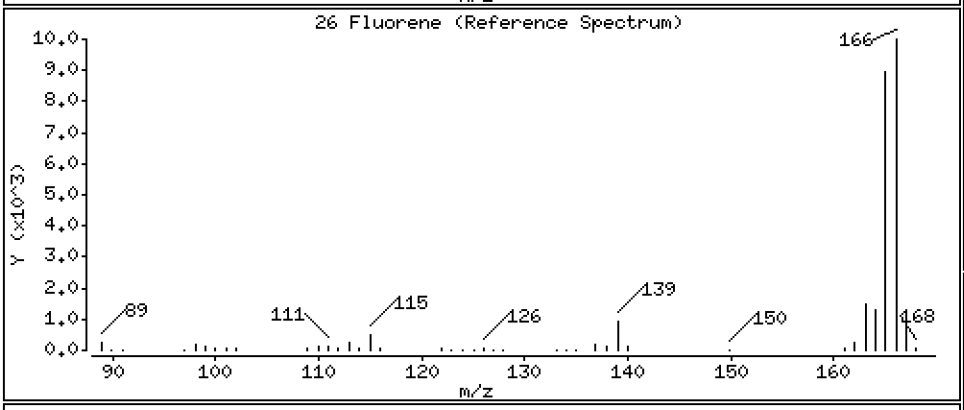
Concentration: 2.804 ug/mL

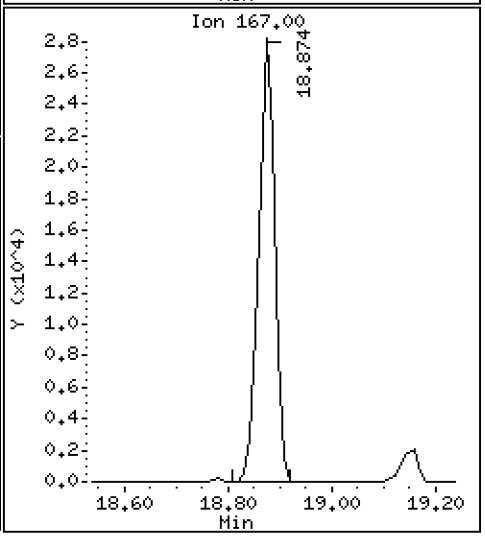


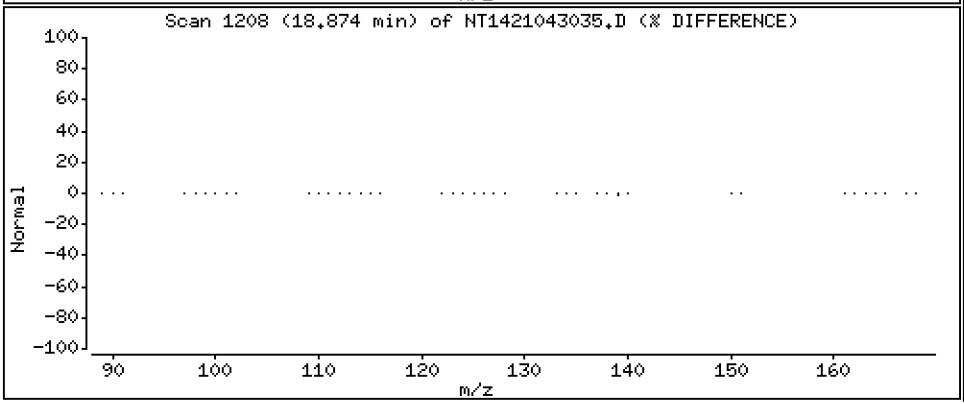












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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

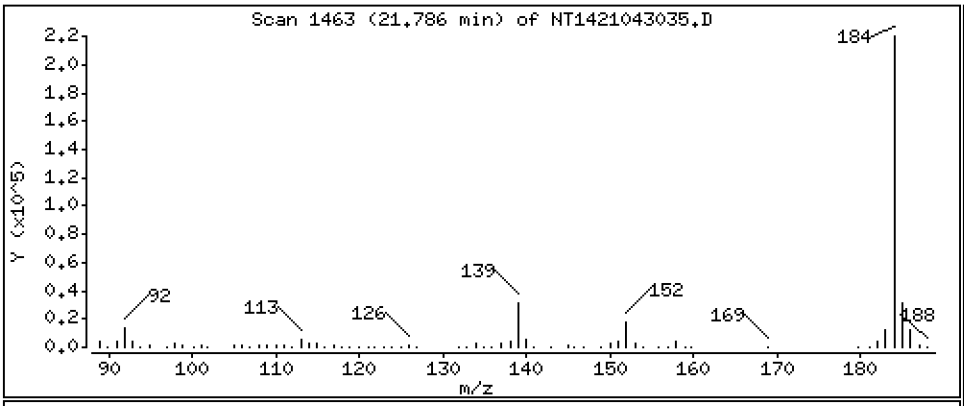
Operator: VTS

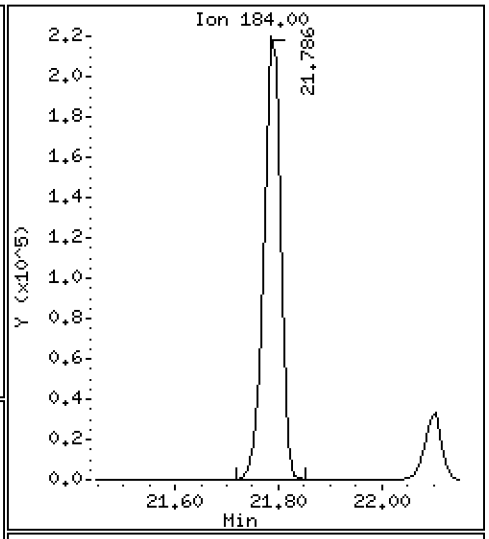
Column phase: Rxi-17Sil MS

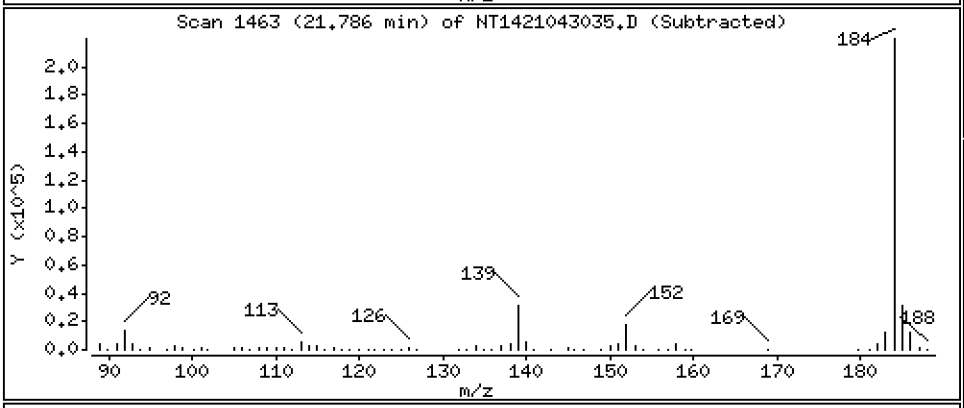
Column diameter: 0.25

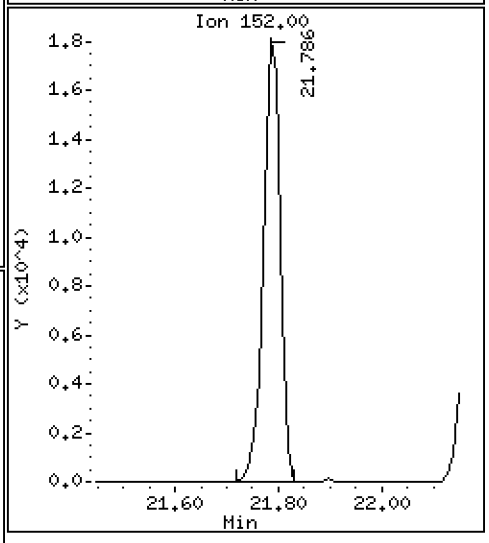
30 Dibenzothiophene

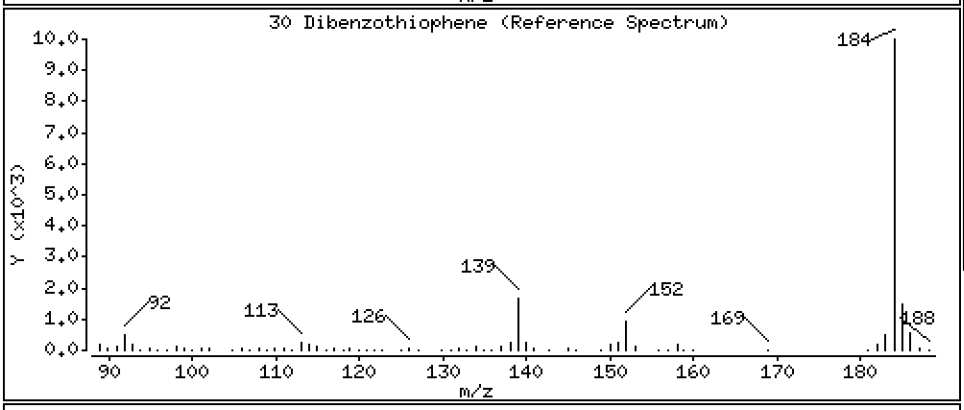
Concentration: 2.328 ug/mL

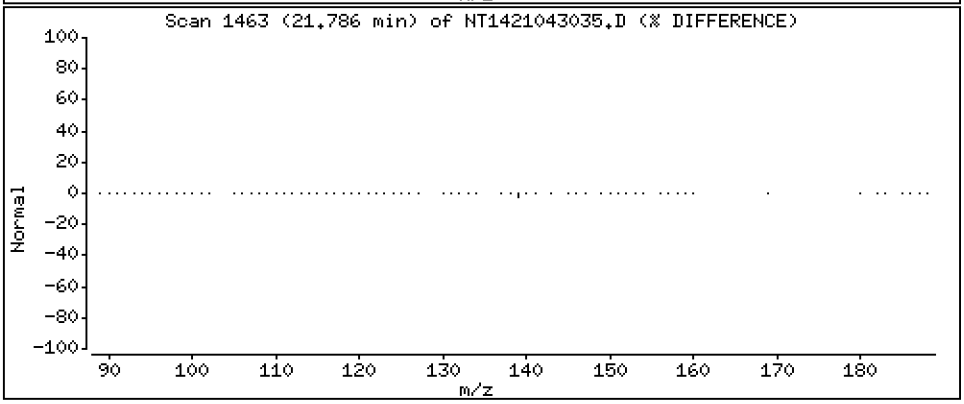












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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

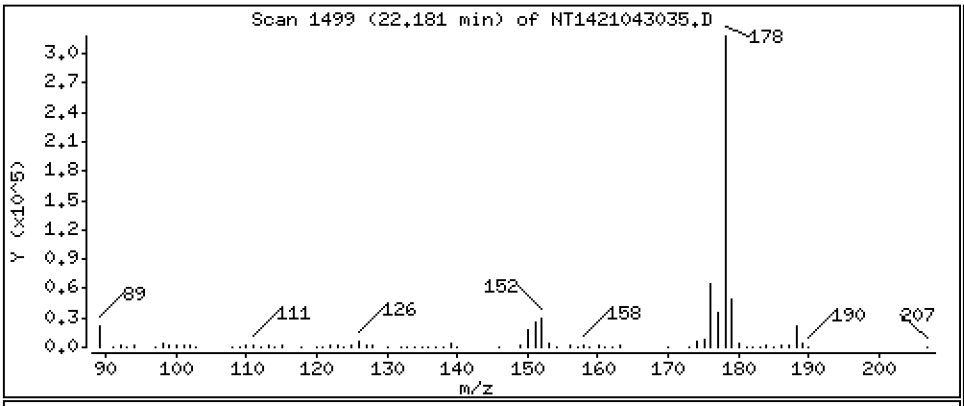
Operator: VTS

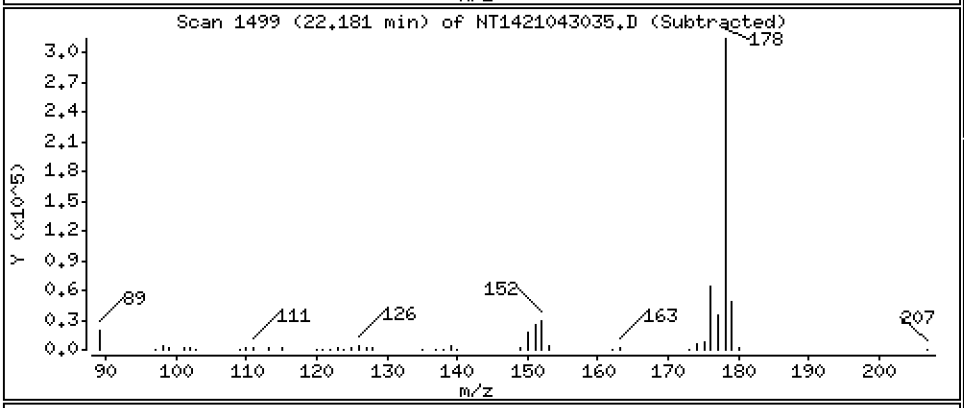
Column phase: Rxi-17Sil MS

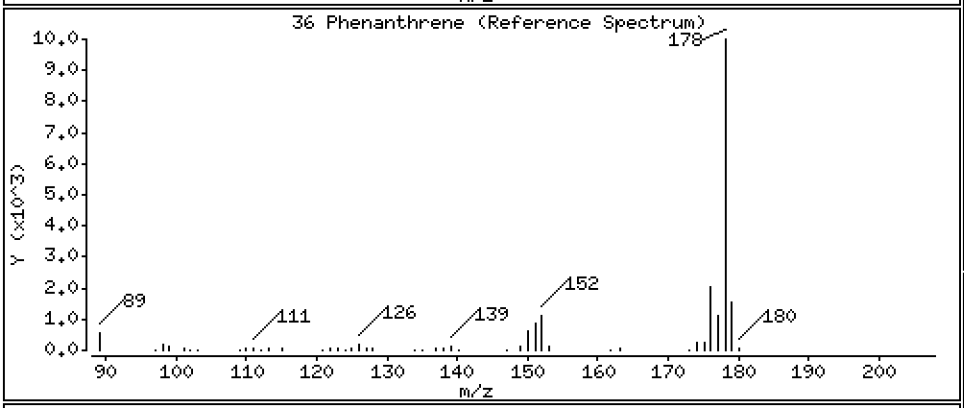
Column diameter: 0.25

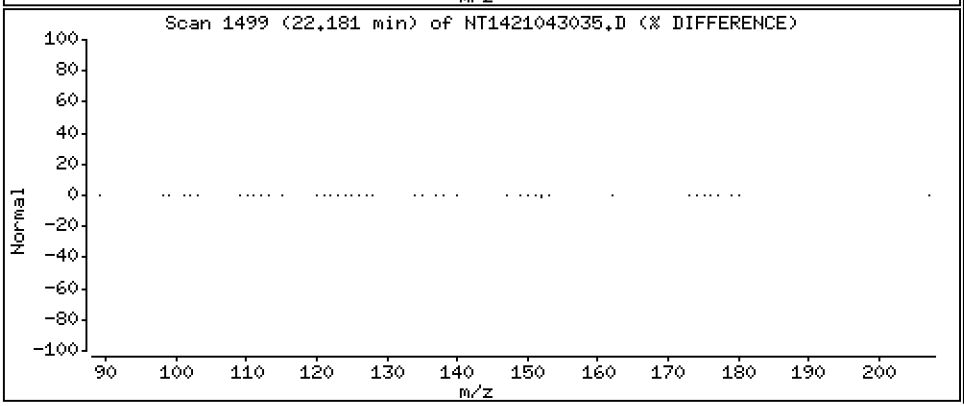
36 Phenanthrene

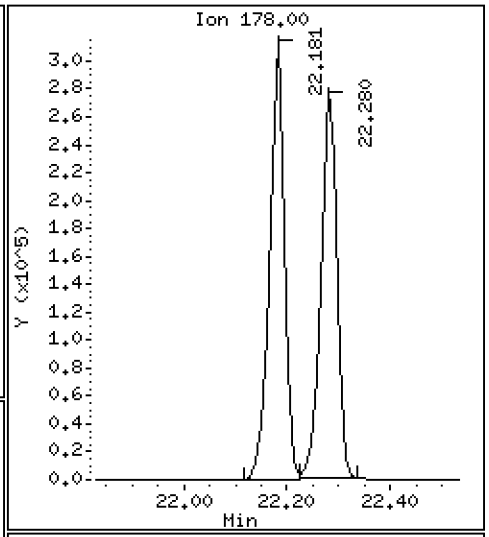
Concentration: 2.568 ug/mL

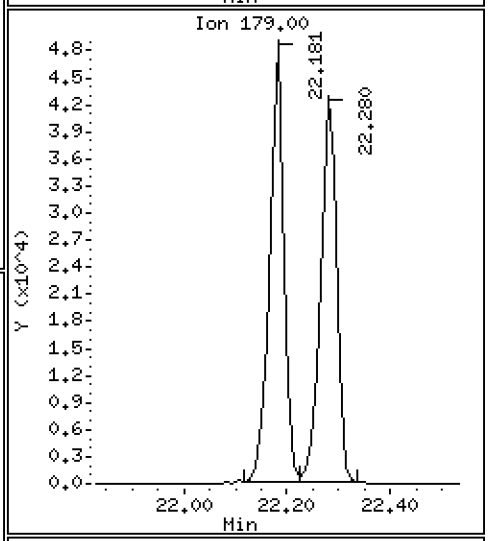


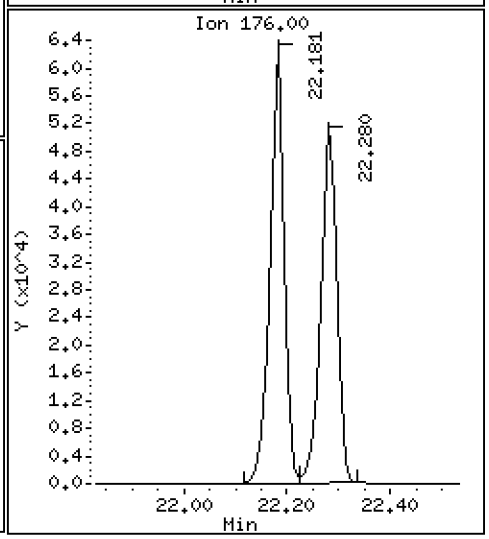












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Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

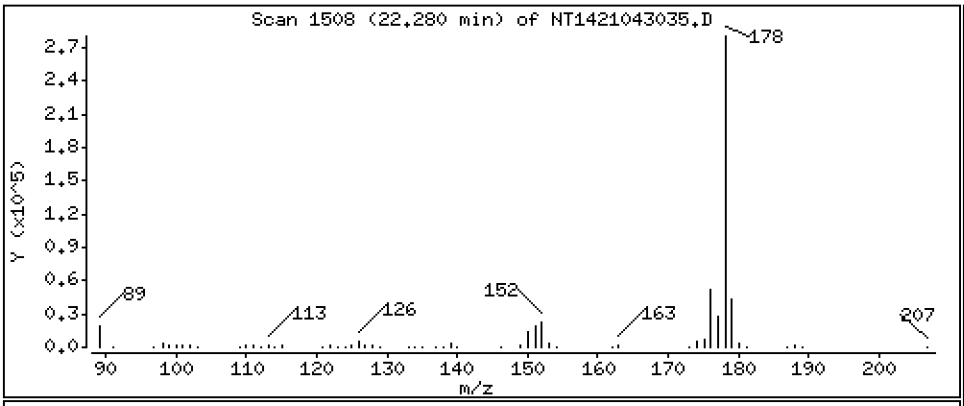
Operator: VTS

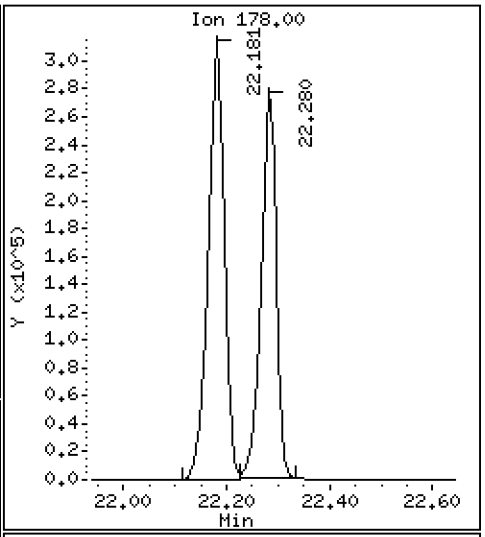
Column phase: Rxi-17Sil MS

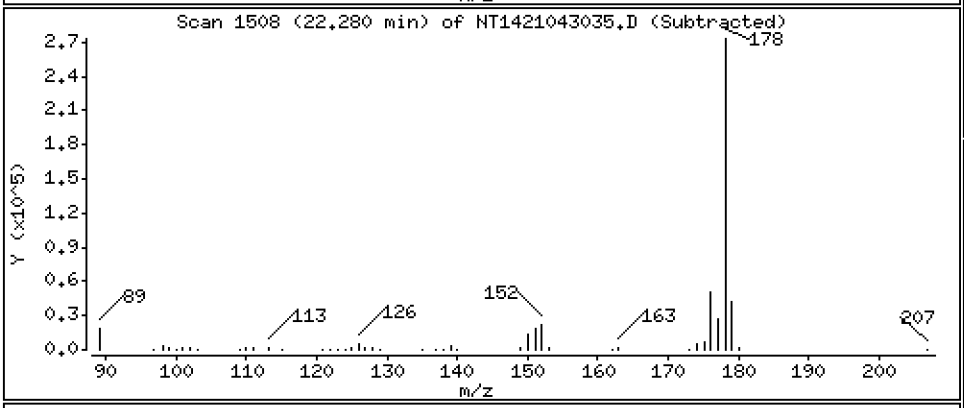
Column diameter: 0.25

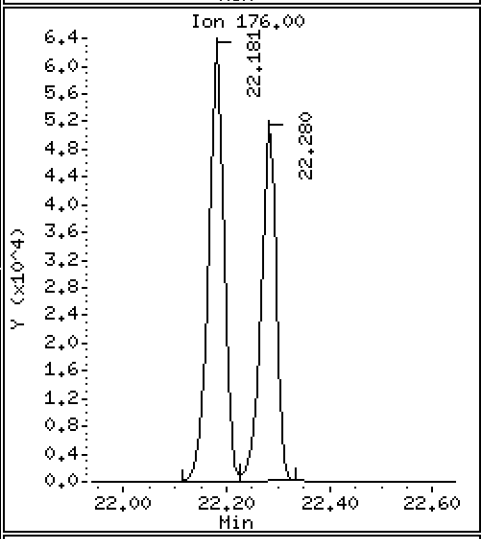
37 Anthracene

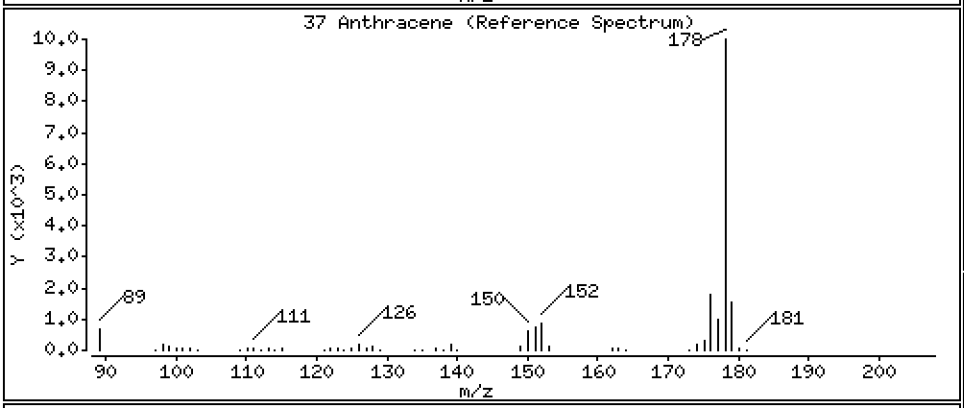
Concentration: 2.444 ug/mL

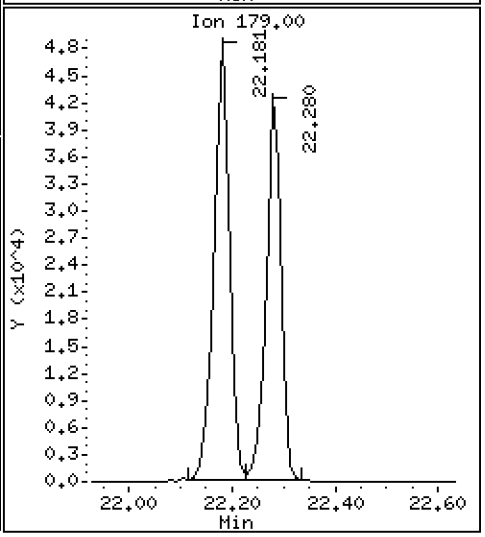


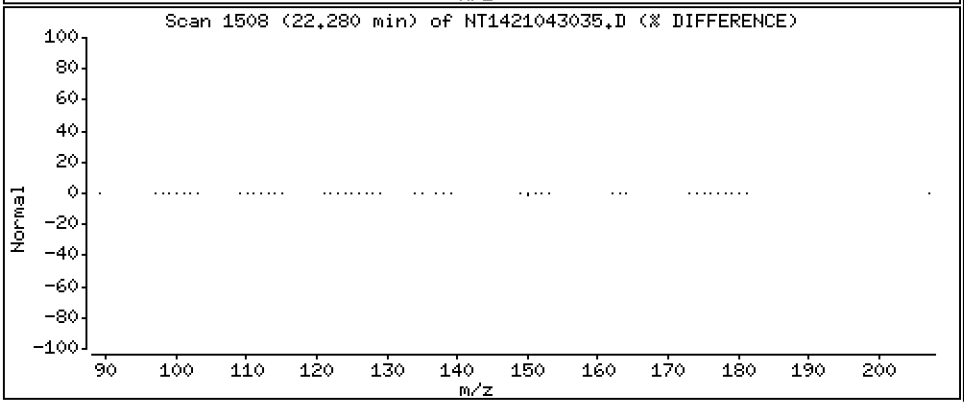












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

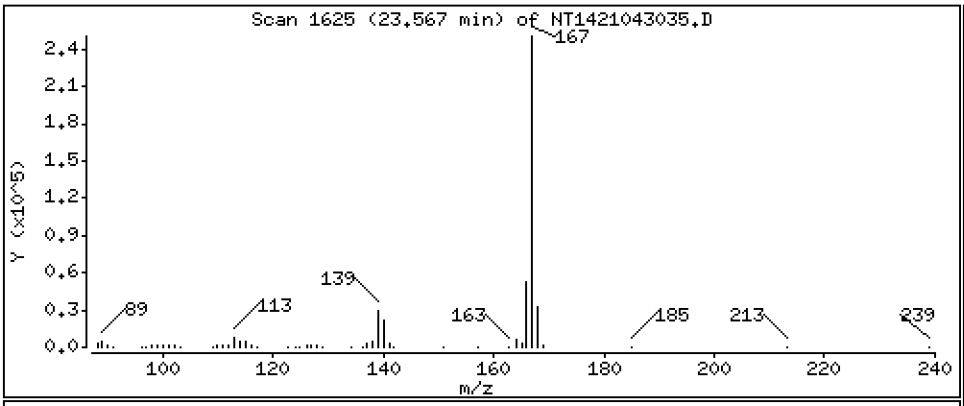
Operator: VTS

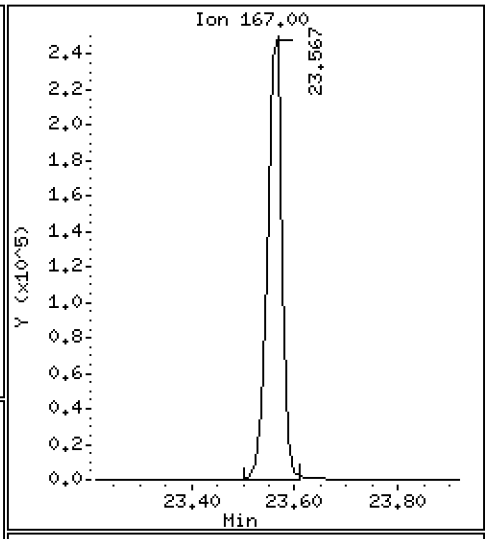
Column phase: Rxi-17Sil MS

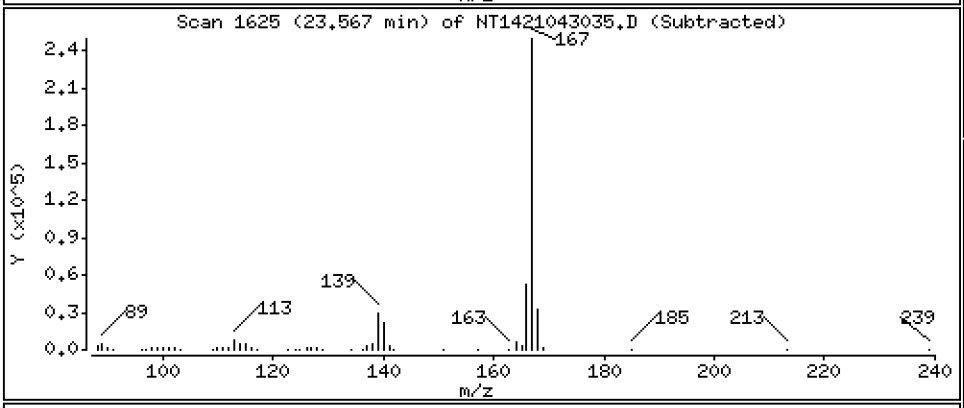
Column diameter: 0.25

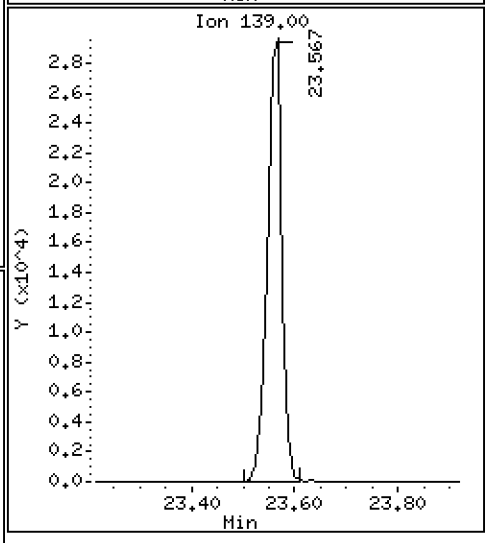
42 Carbazole

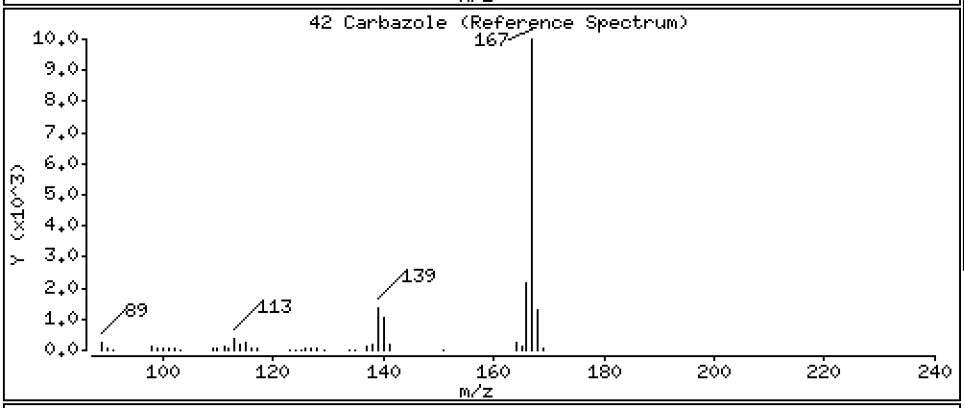
Concentration: 2.584 ug/mL

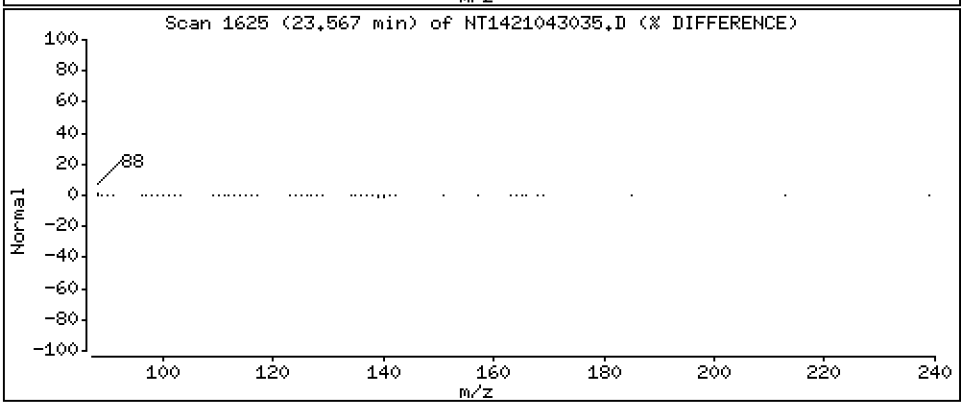












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

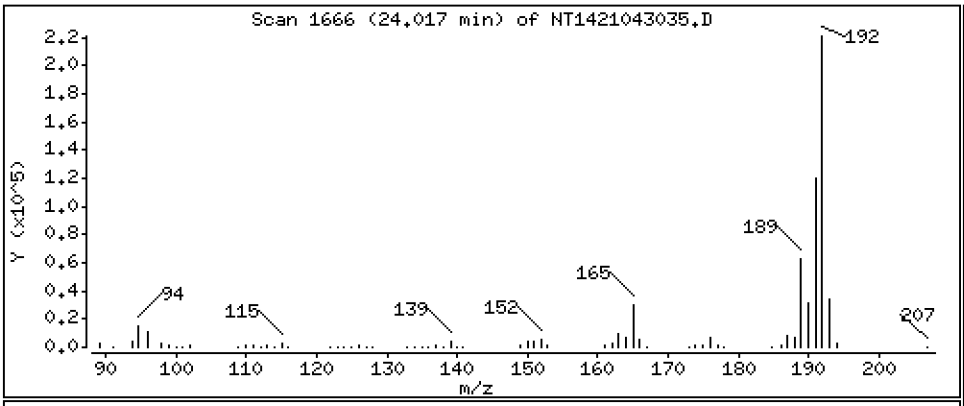
Operator: VTS

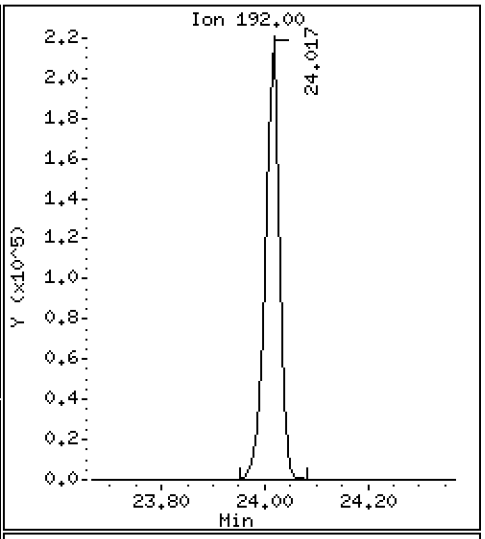
Column phase: Rxi-17Sil MS

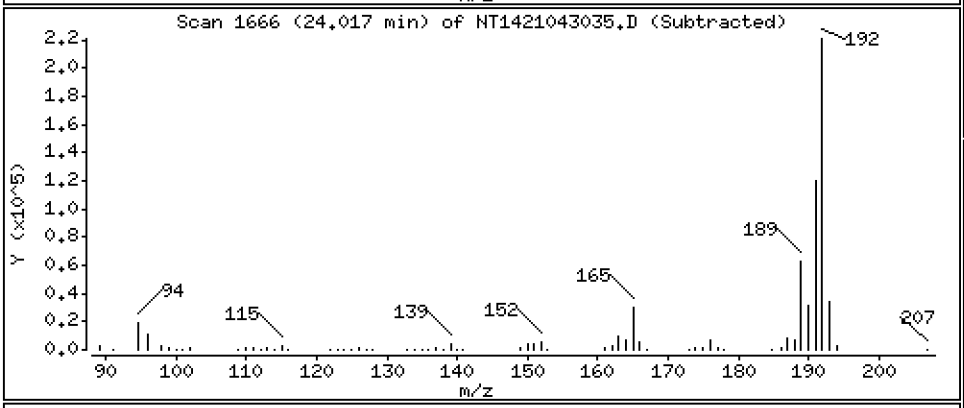
Column diameter: 0.25

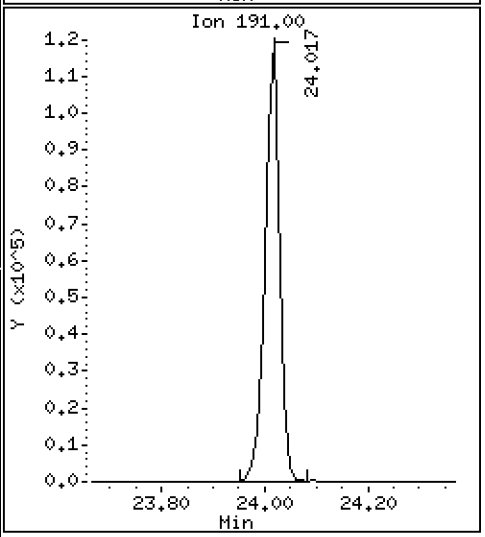
43 1-Methylphenanthrene

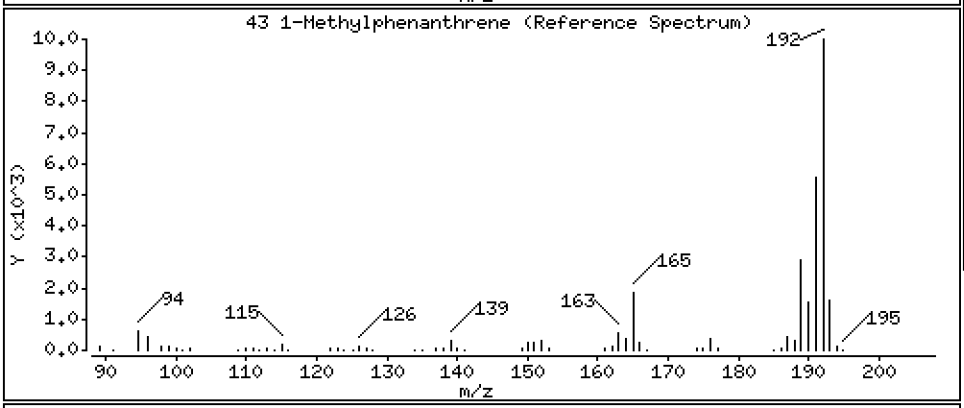
Concentration: 2.819 ug/mL

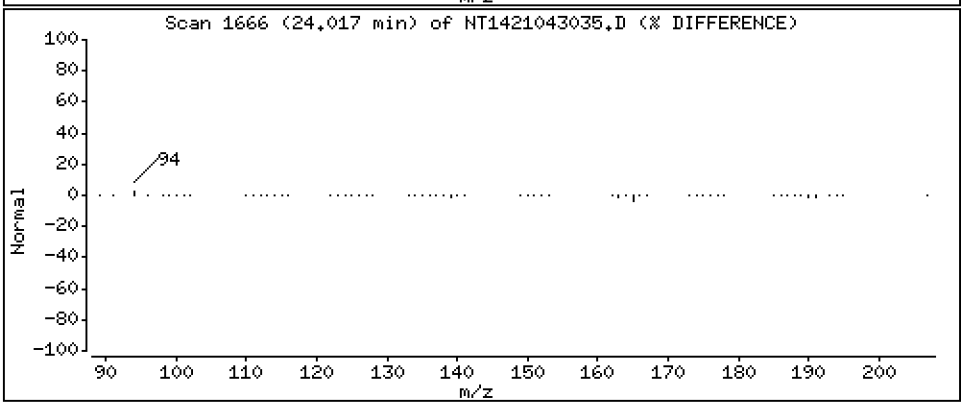












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

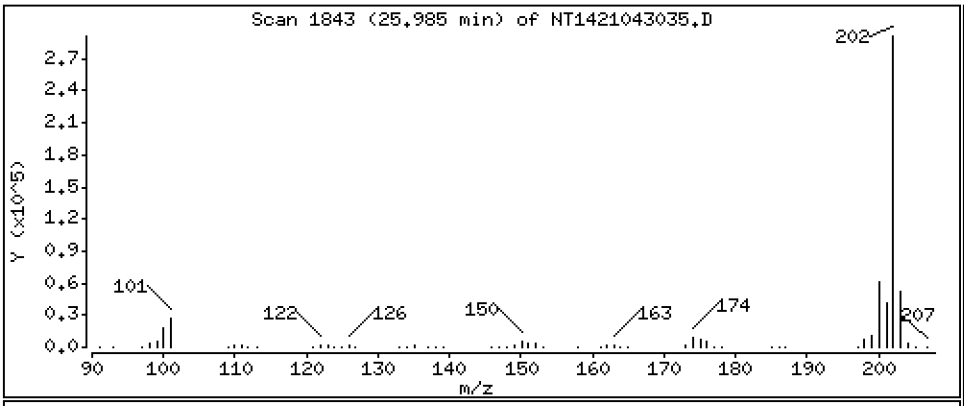
Operator: VTS

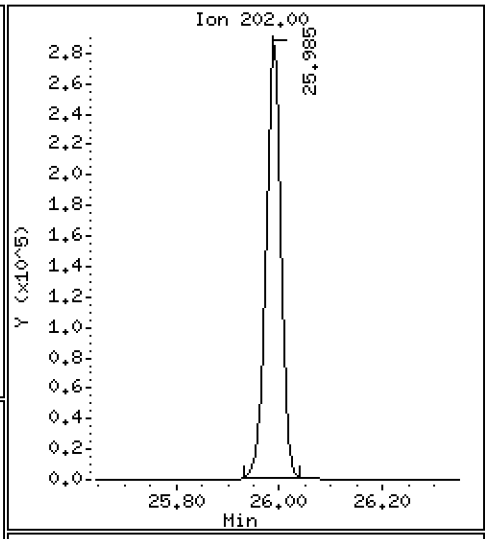
Column phase: Rxi-17Sil MS

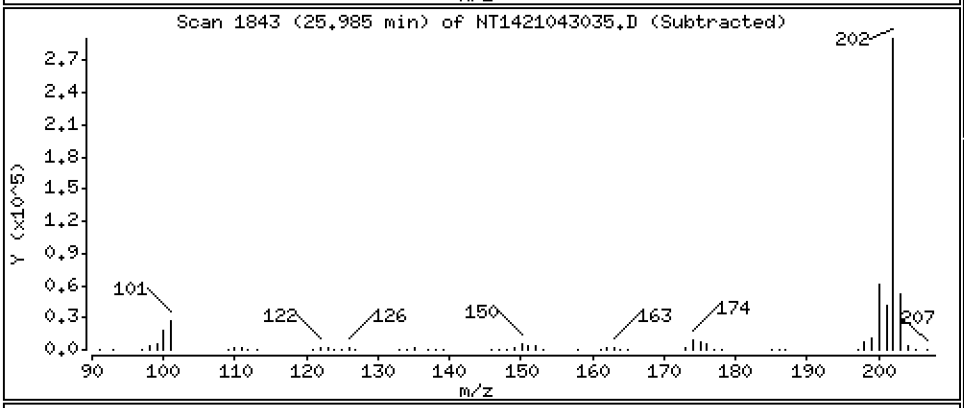
Column diameter: 0.25

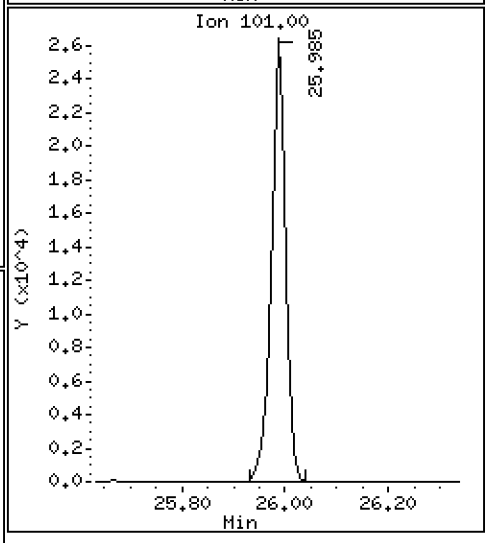
44 Fluoranthene

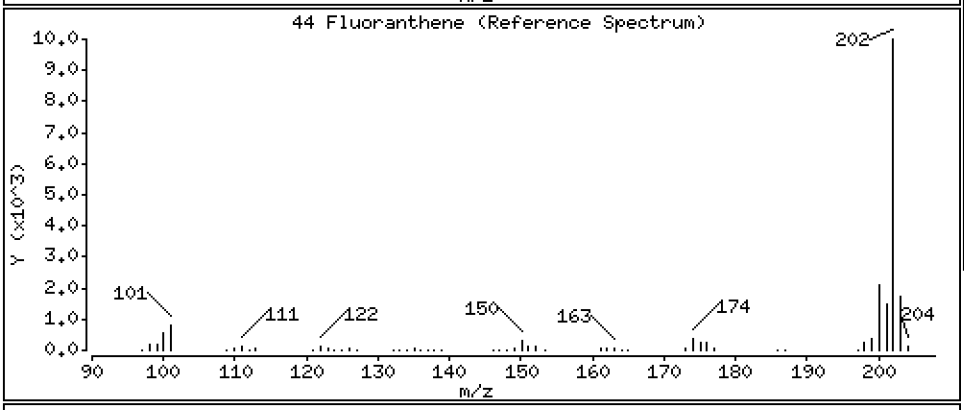
Concentration: 2.711 ug/mL

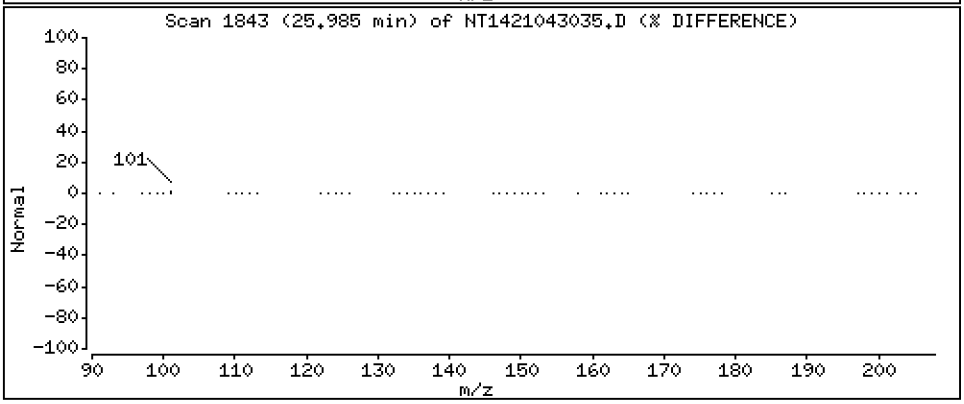












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

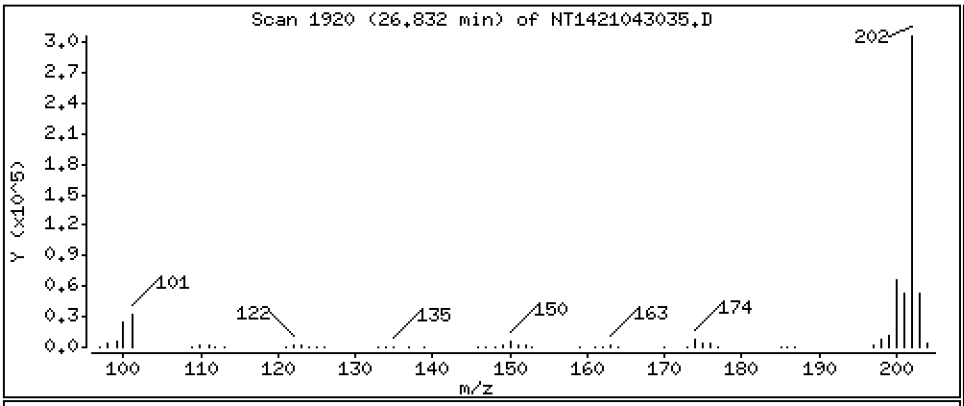
Operator: VTS

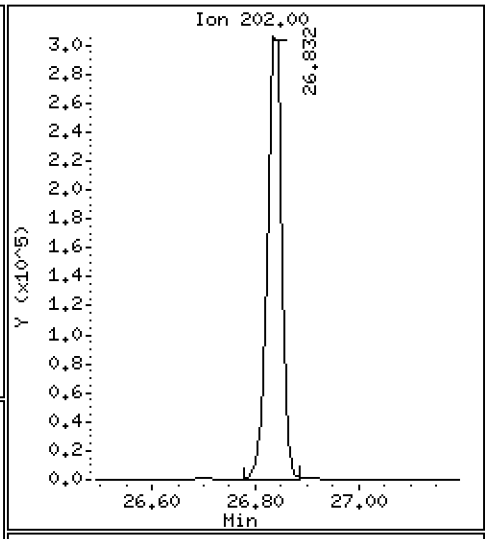
Column phase: Rxi-17Sil MS

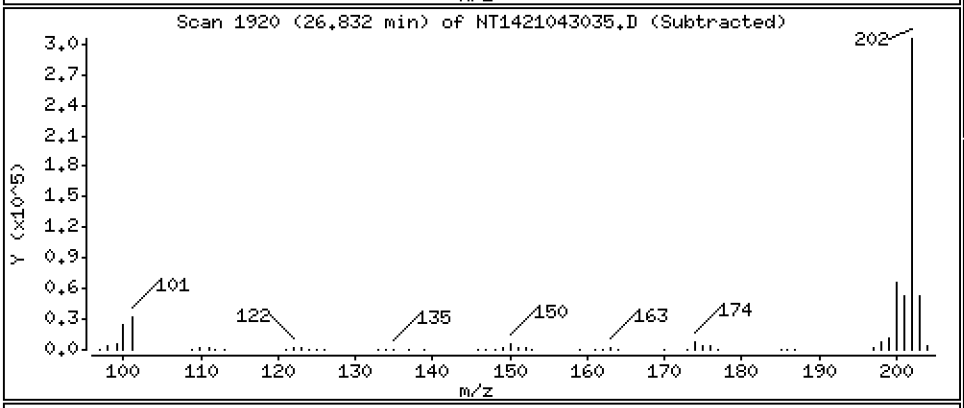
Column diameter: 0.25

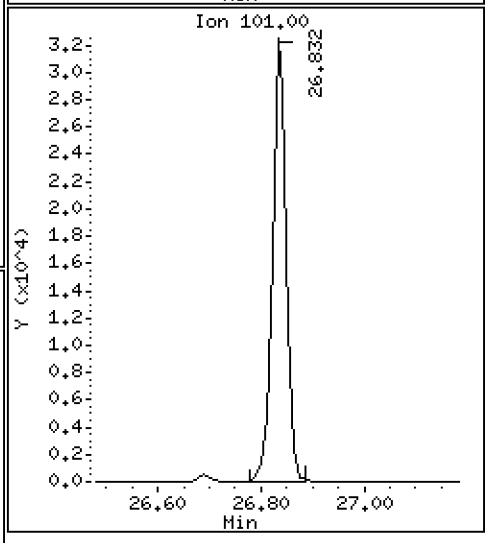
46 Pyrene

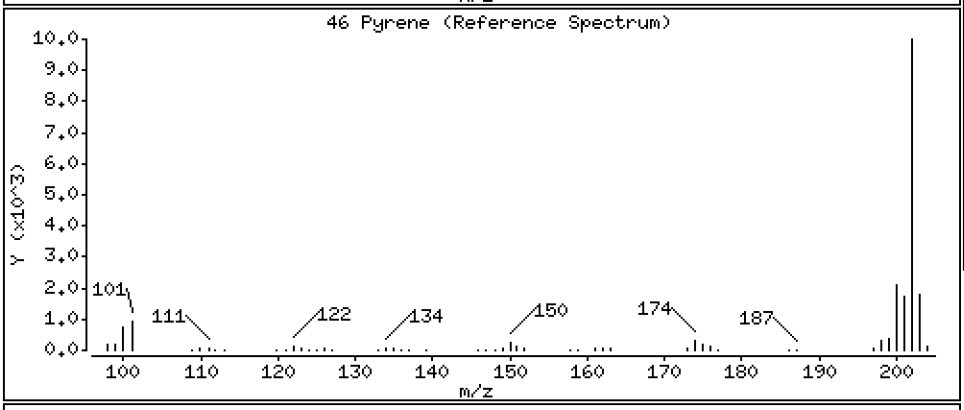
Concentration: 2.653 ug/mL

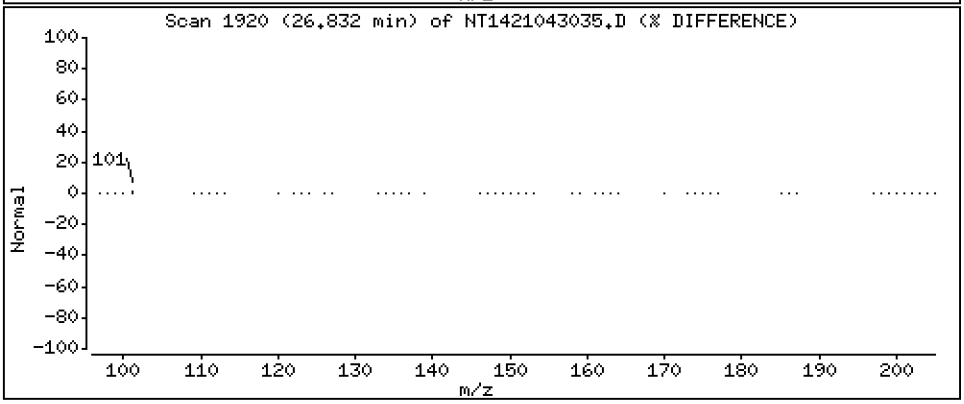












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

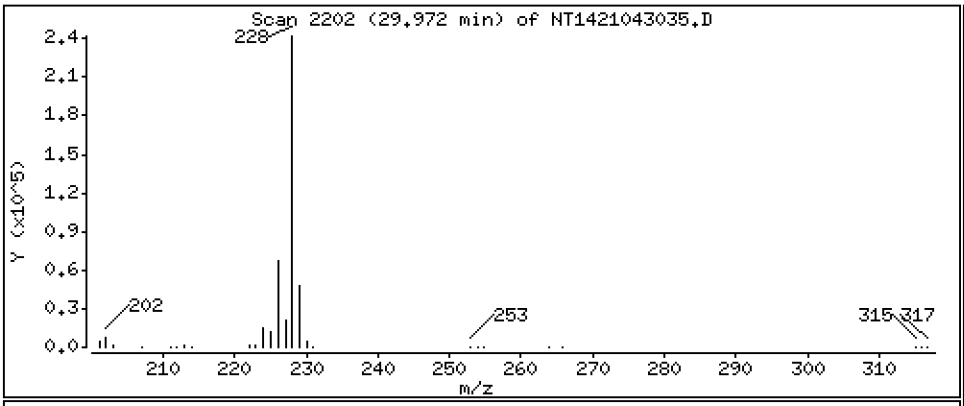
Operator: VTS

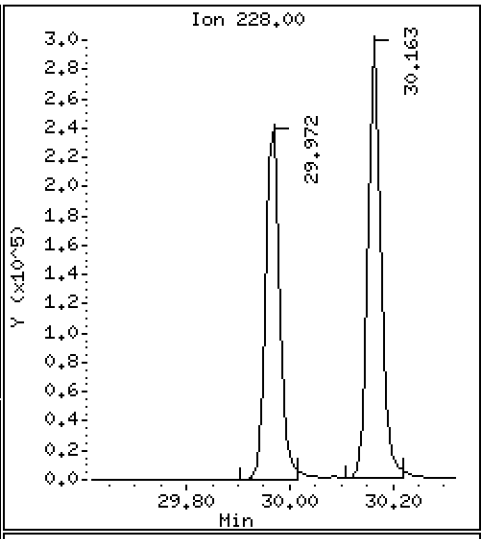
Column phase: Rxi-17Sil MS

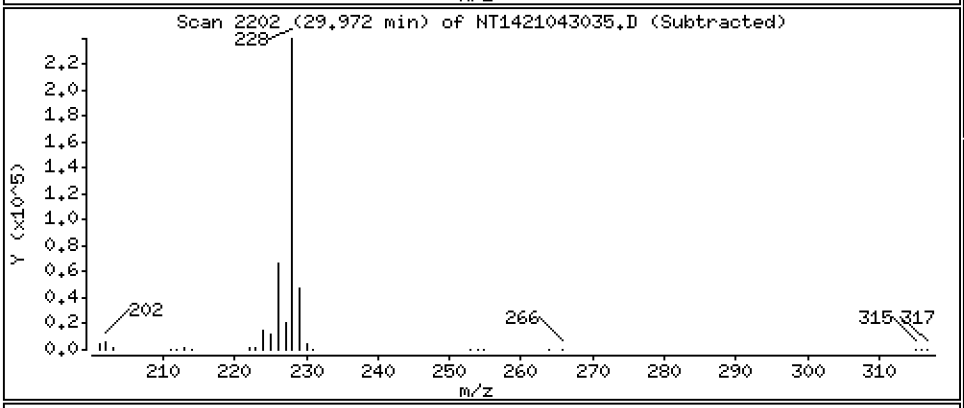
Column diameter: 0.25

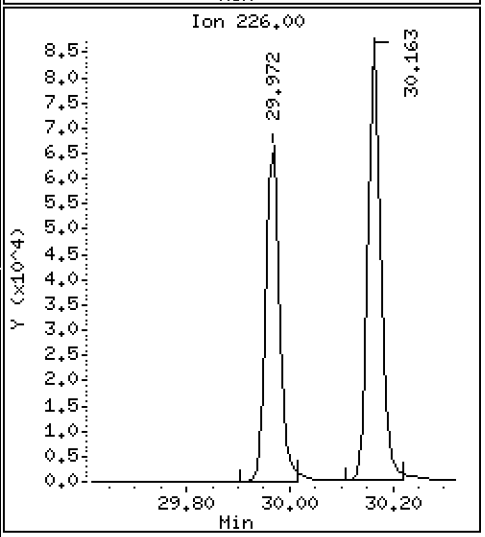
55 Benzo(a)anthracene

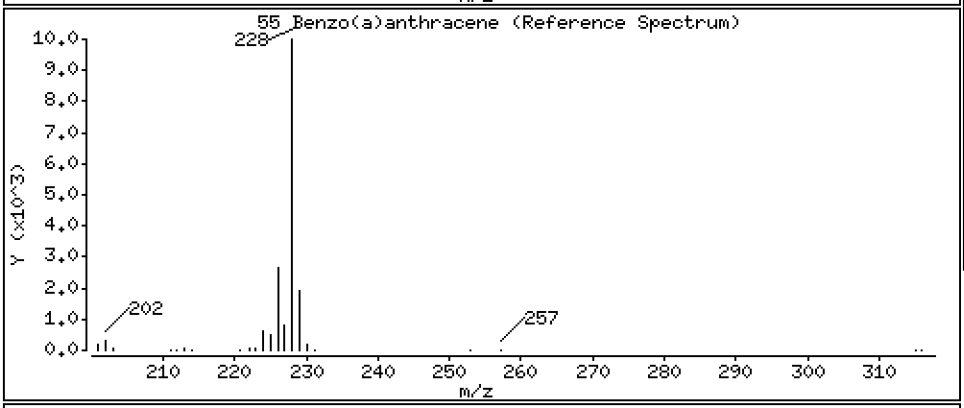
Concentration: 2.435 ug/mL

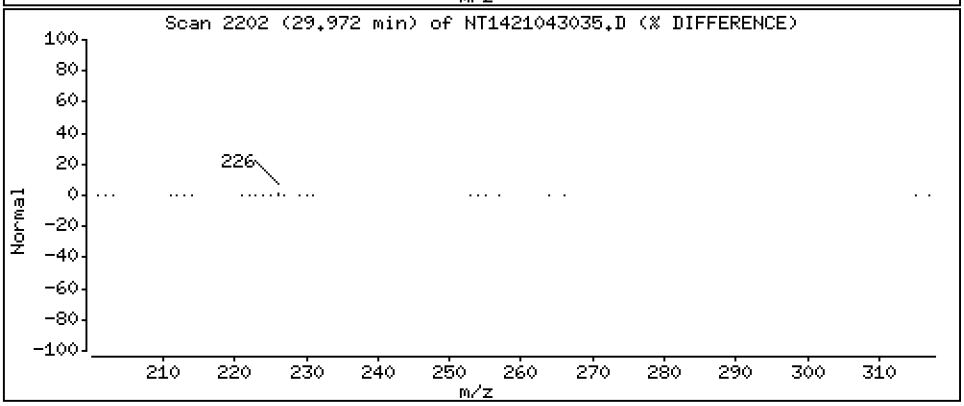












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

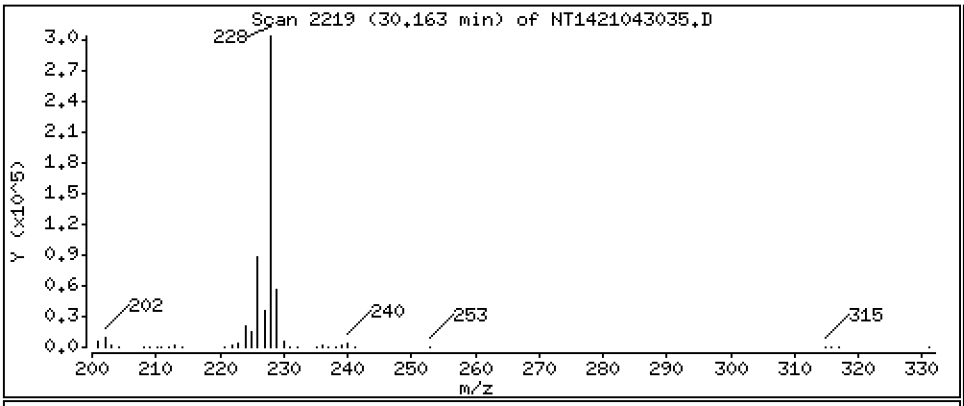
Operator: VTS

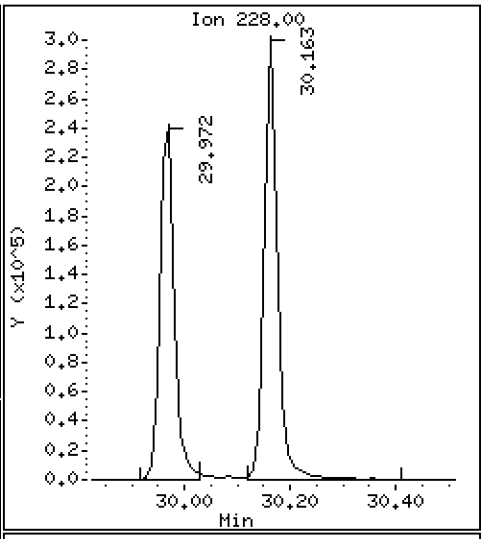
Column phase: Rxi-17Sil MS

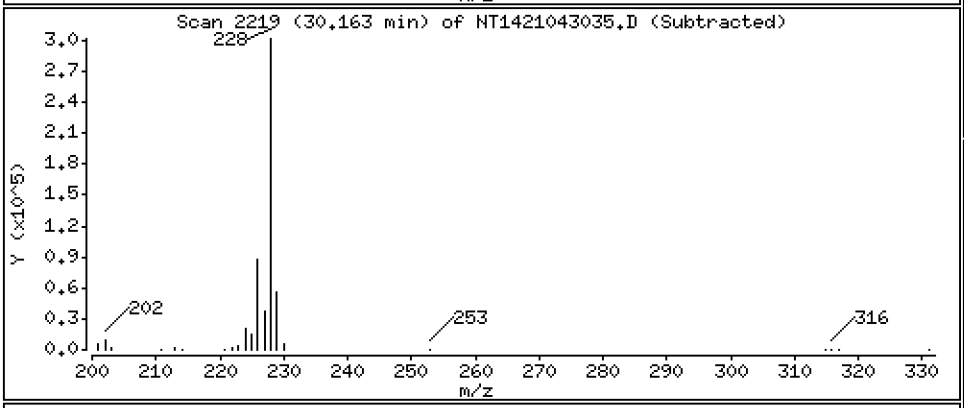
Column diameter: 0.25

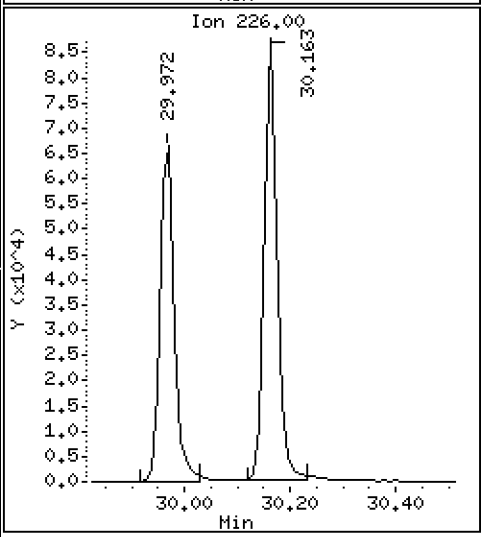
57 Chrysene

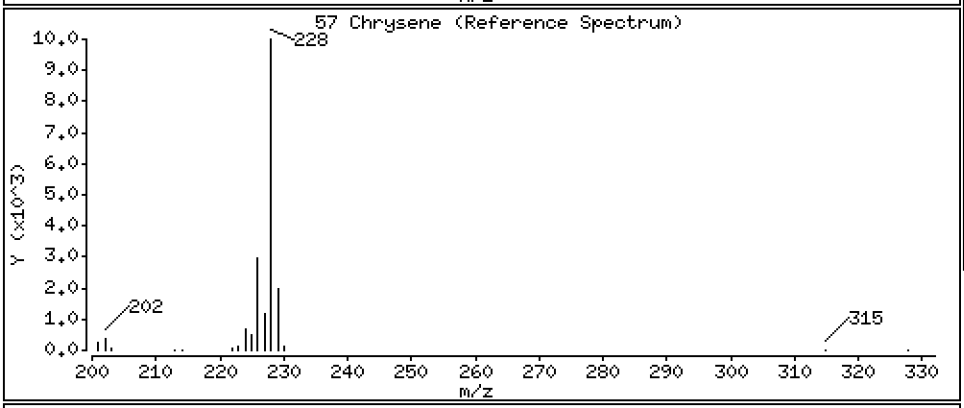
Concentration: 2.785 ug/mL

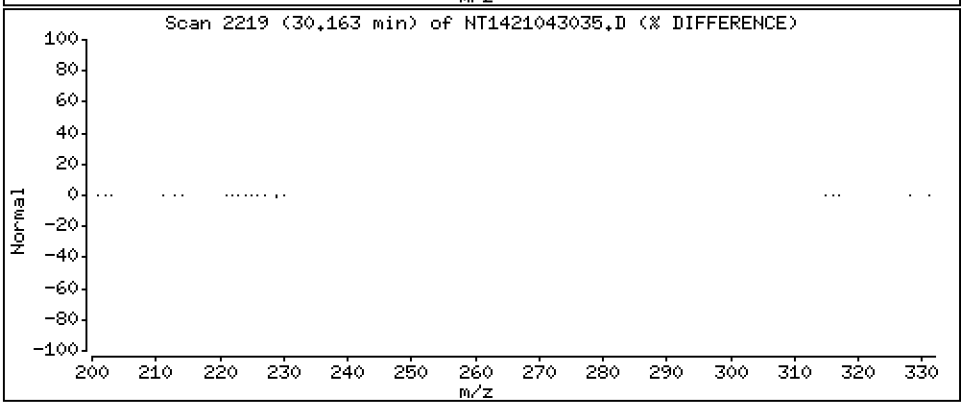












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

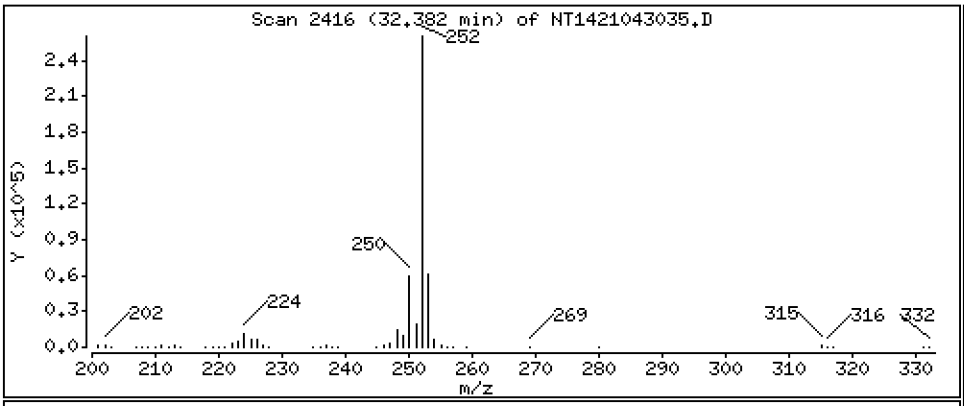
Operator: VTS

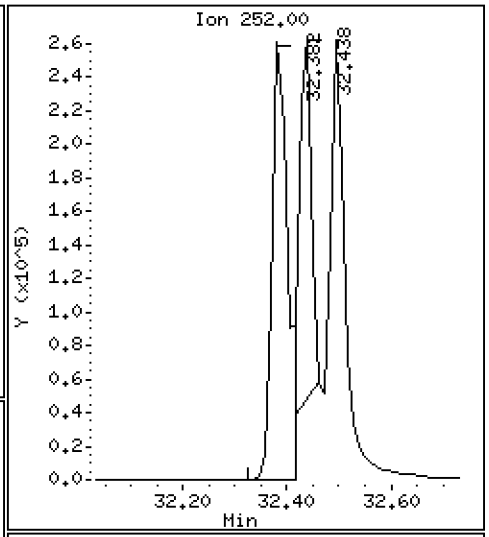
Column phase: Rxi-17Sil MS

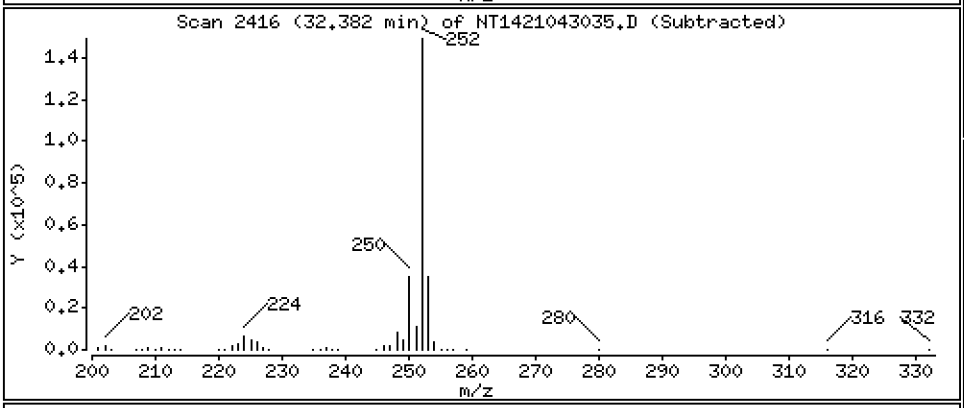
Column diameter: 0.25

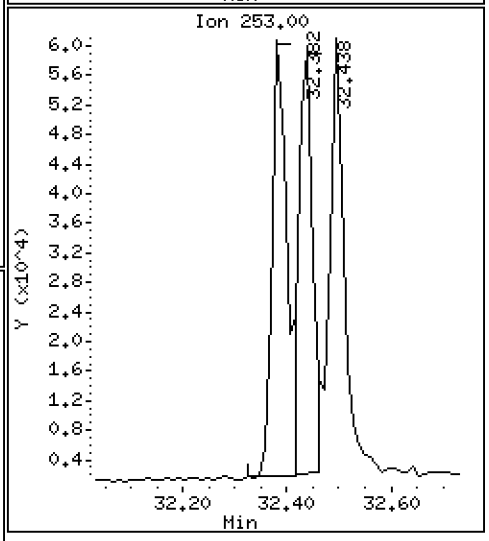
62 Benzo(b)fluoranthene

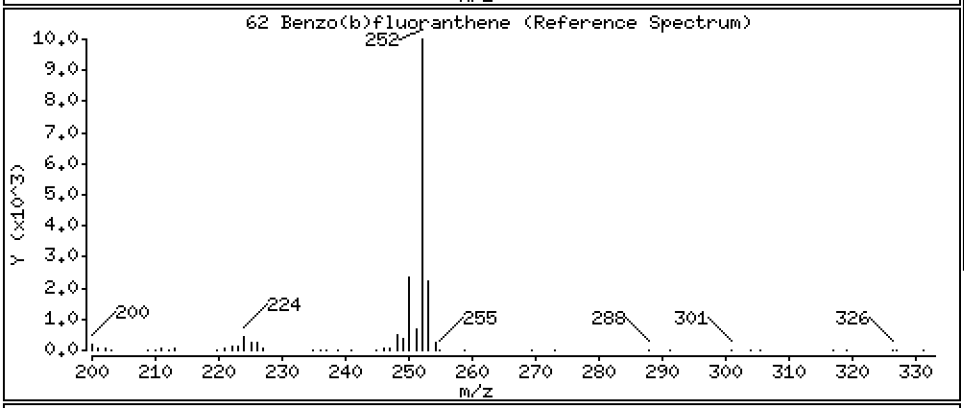
Concentration: 2.922 ug/mL

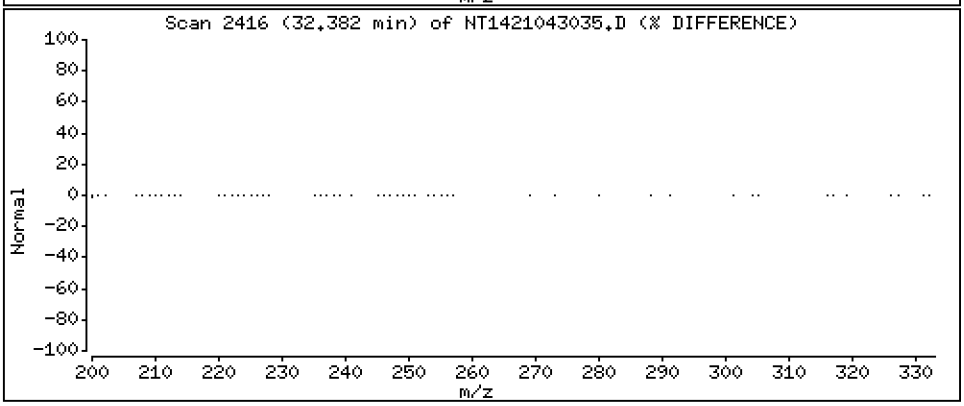












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

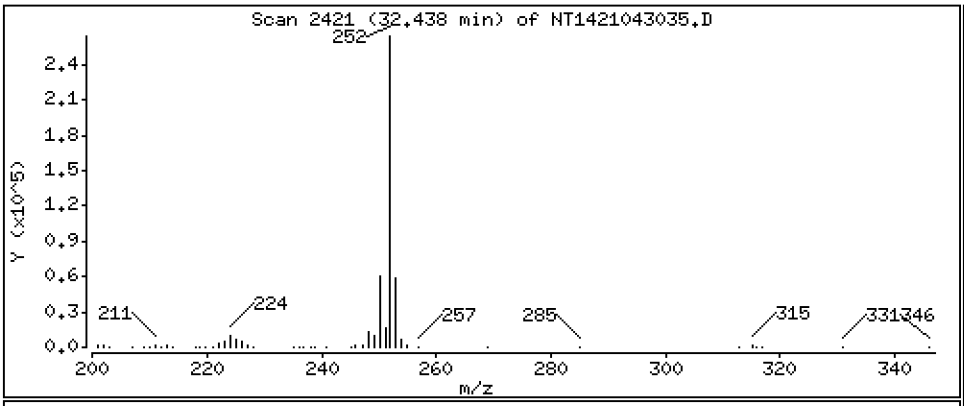
Operator: VTS

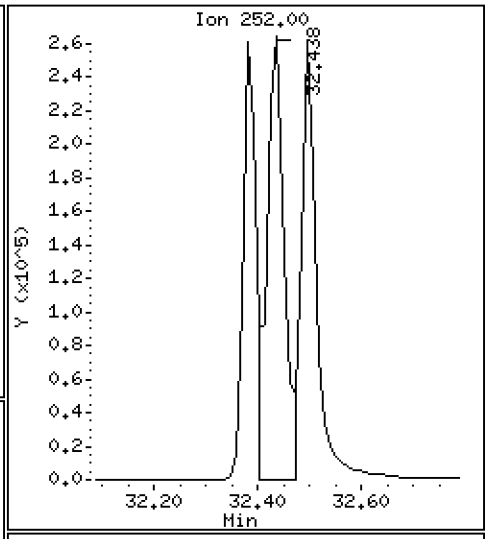
Column phase: Rxi-17Sil MS

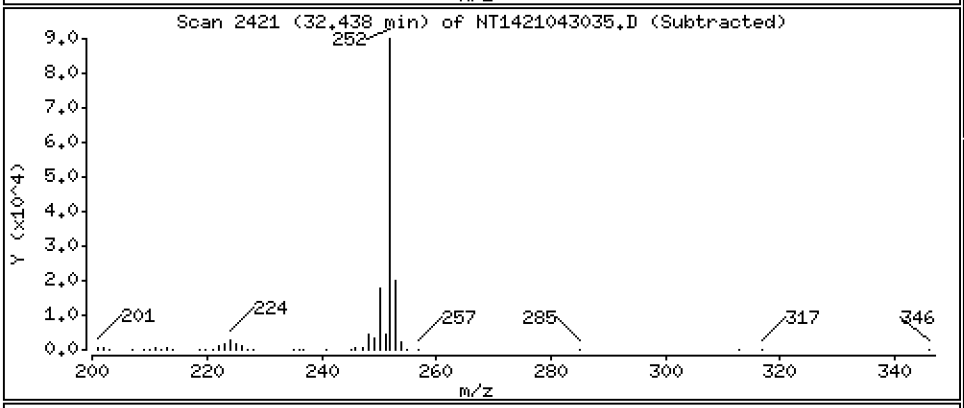
Column diameter: 0.25

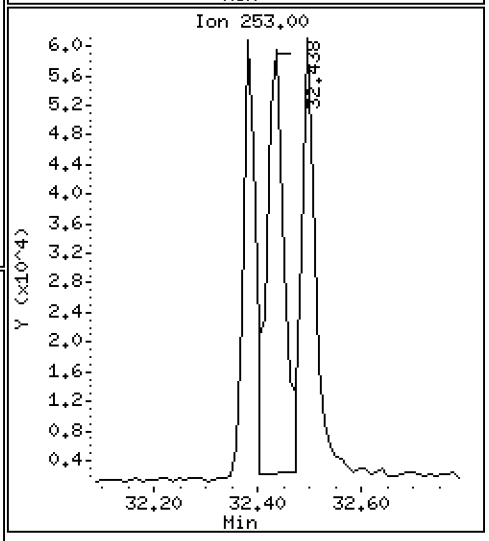
63 Benzo(k)fluoranthene

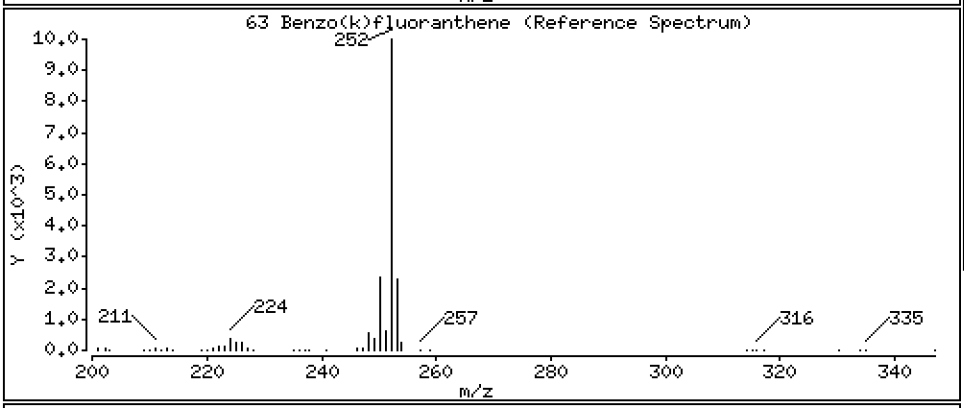
Concentration: 2.838 ug/mL

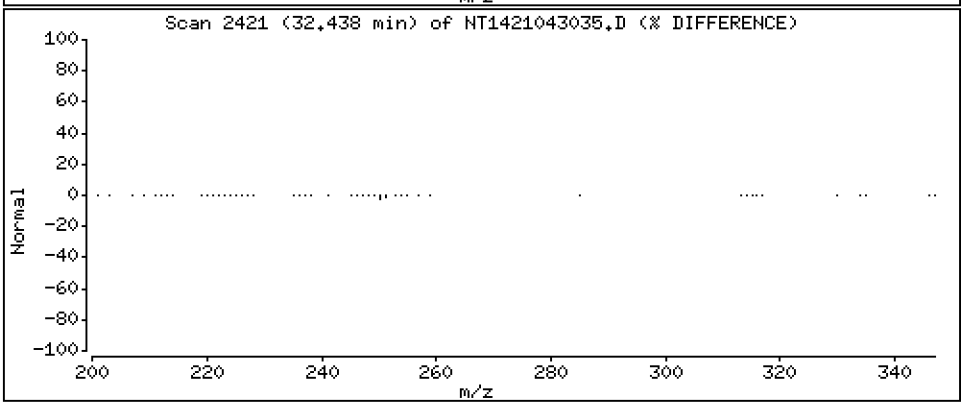












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

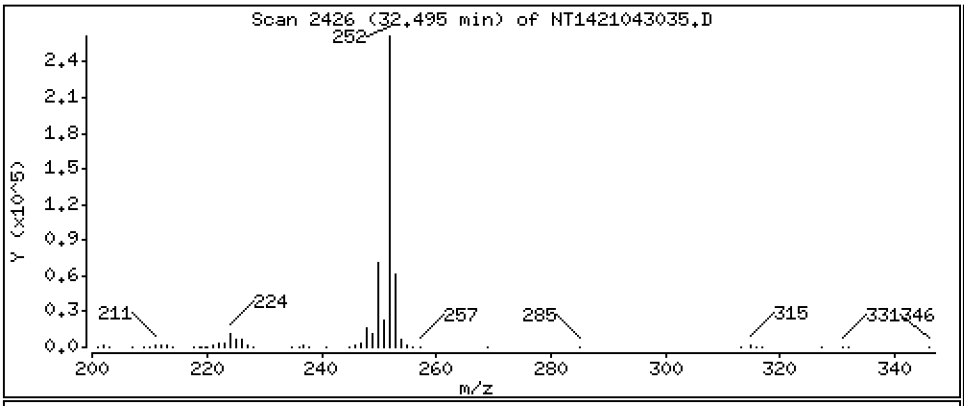
Operator: VTS

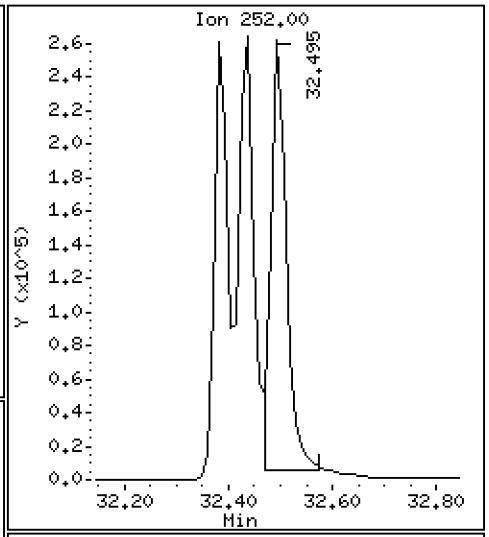
Column phase: Rxi-17Sil MS

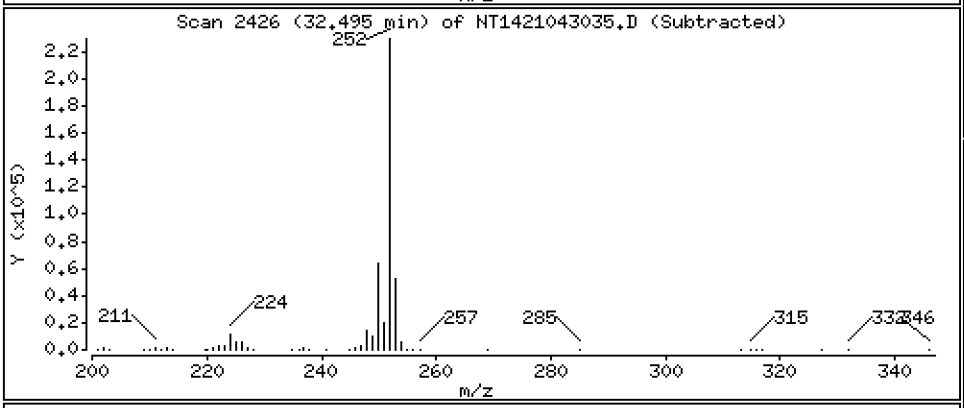
Column diameter: 0.25

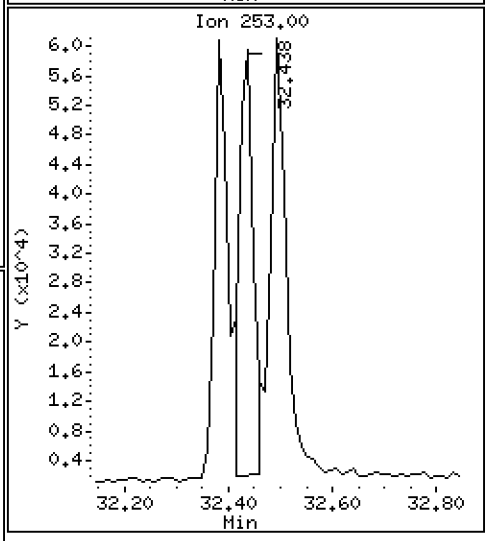
293 Benzo(j)fluoranthene

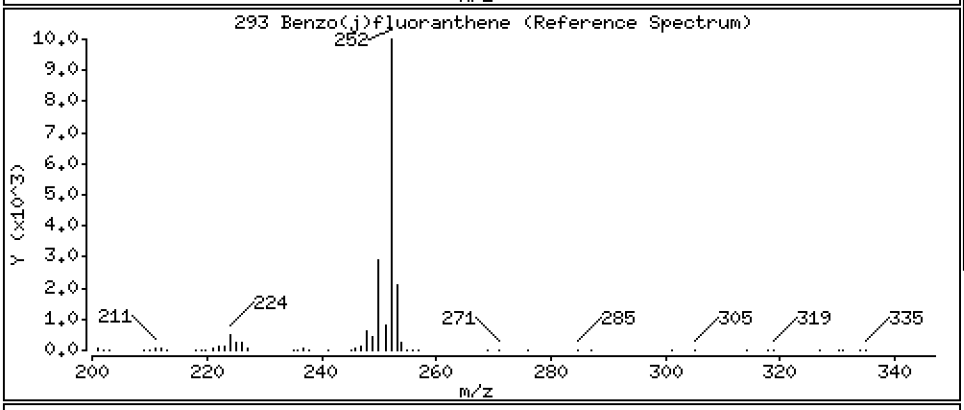
Concentration: 2.508 ug/mL

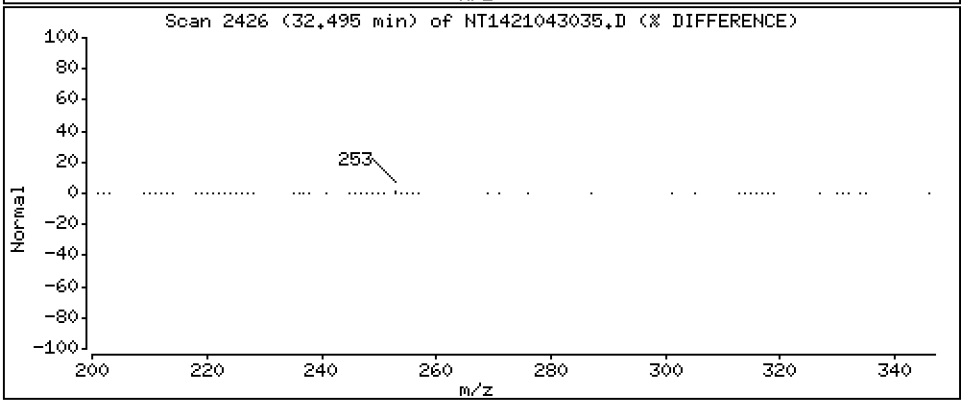












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

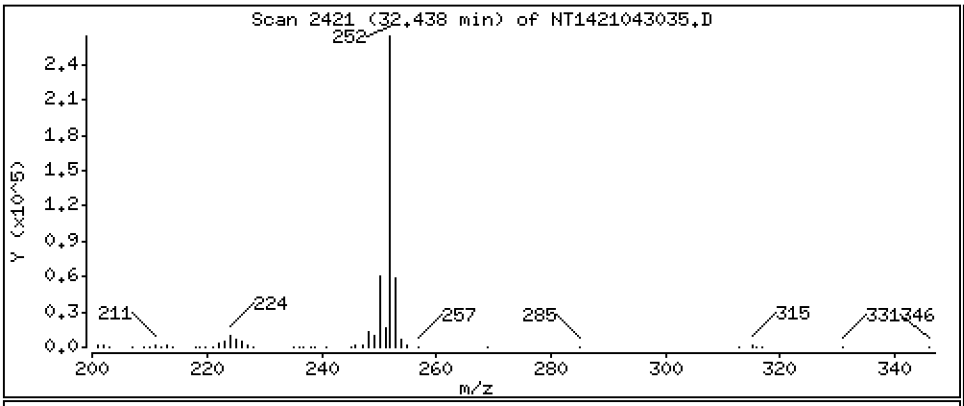
Operator: VTS

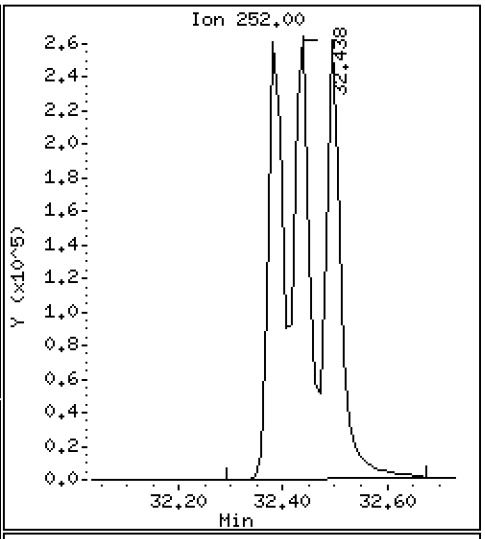
Column phase: Rxi-17Sil MS

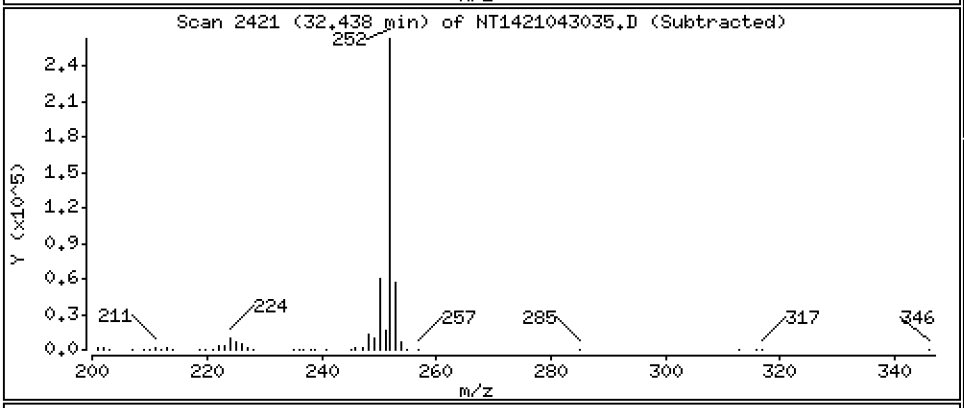
Column diameter: 0.25

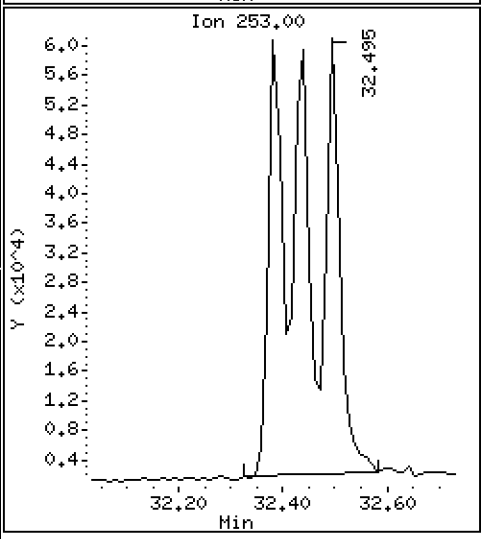
246 Total Benzofluoranthenes

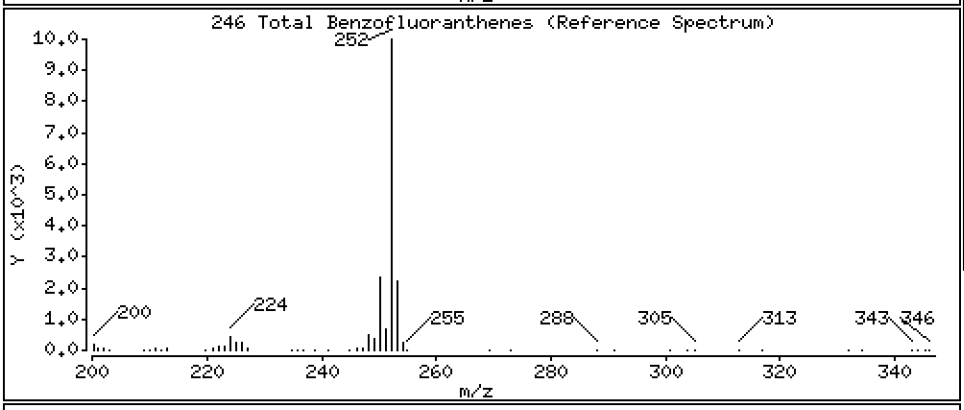
Concentration: 7.806 ug/mL

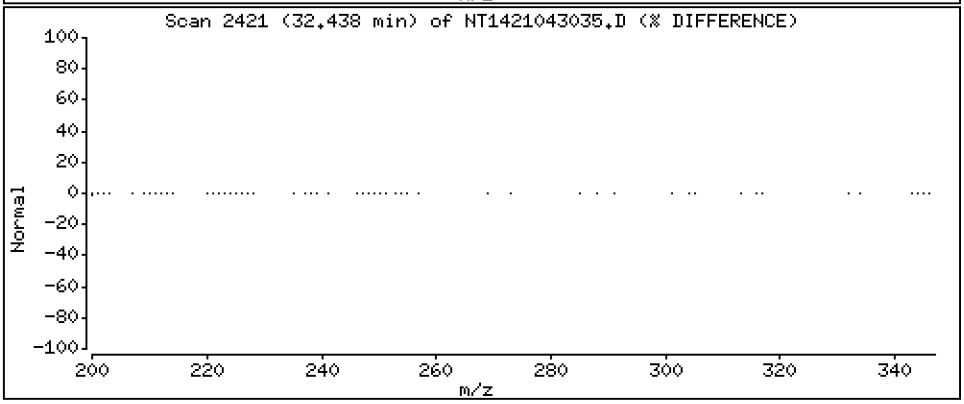












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

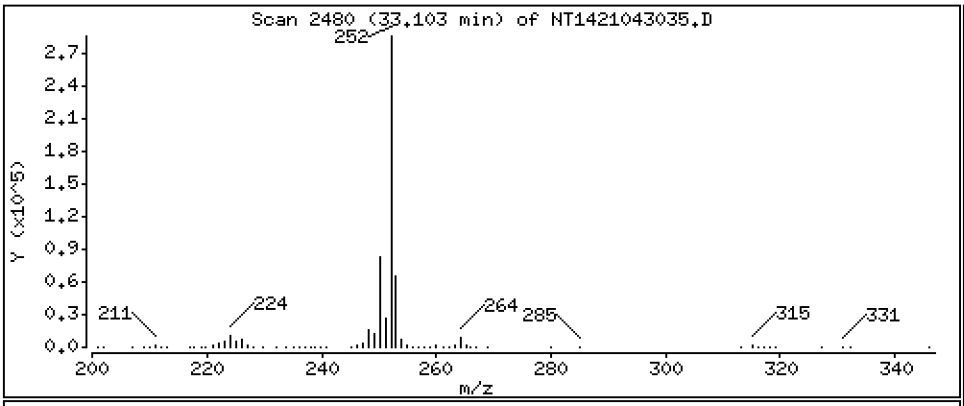
Operator: VTS

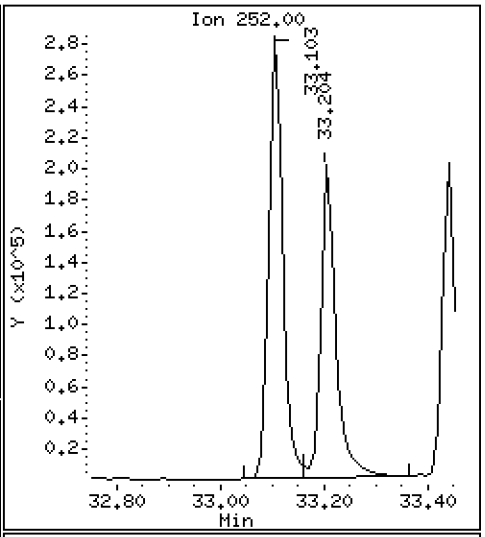
Column phase: Rxi-17Sil MS

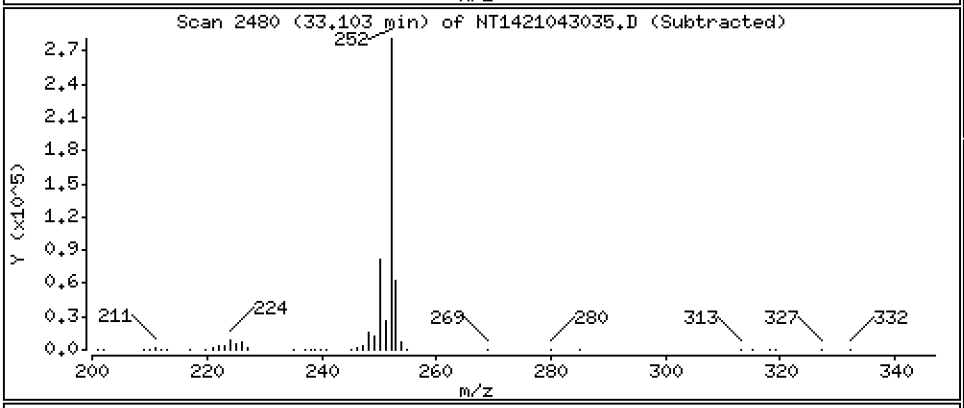
Column diameter: 0.25

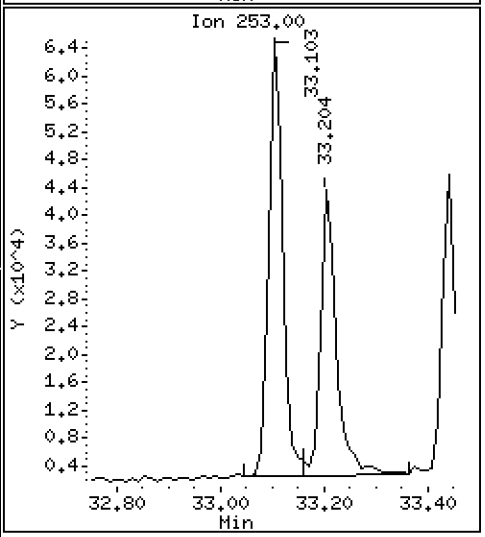
64 Benzo(e)pyrene

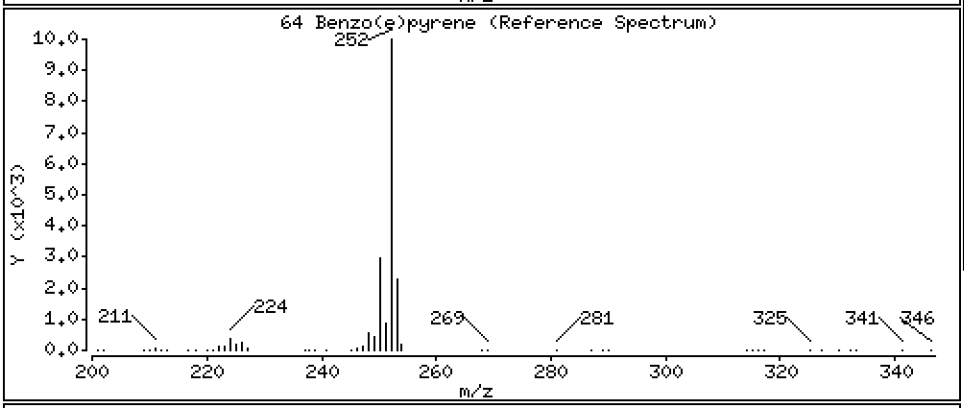
Concentration: 2.804 ug/mL

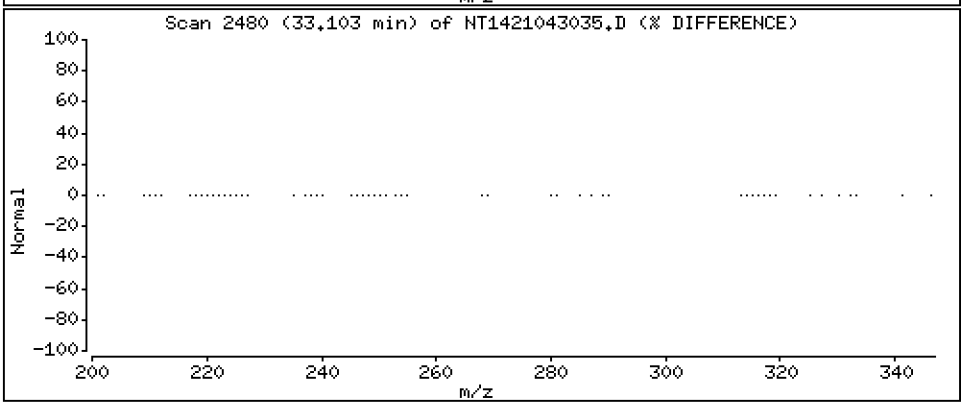












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

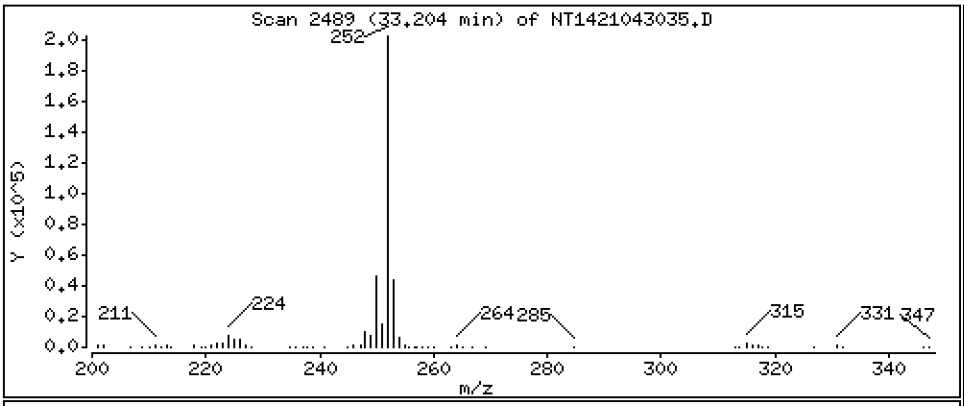
Operator: VTS

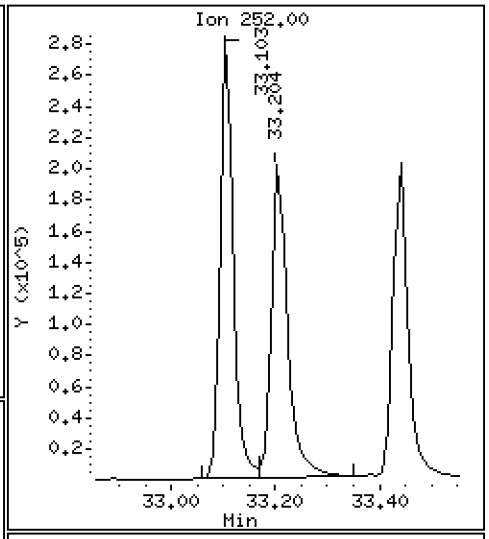
Column phase: Rxi-17Sil MS

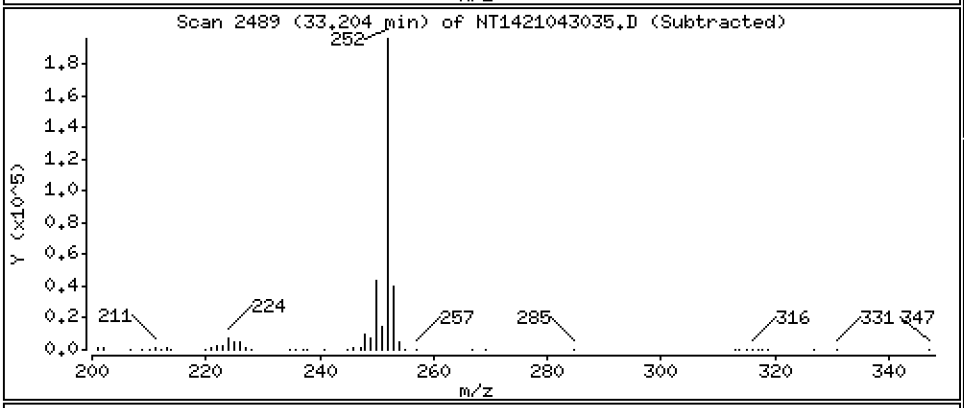
Column diameter: 0.25

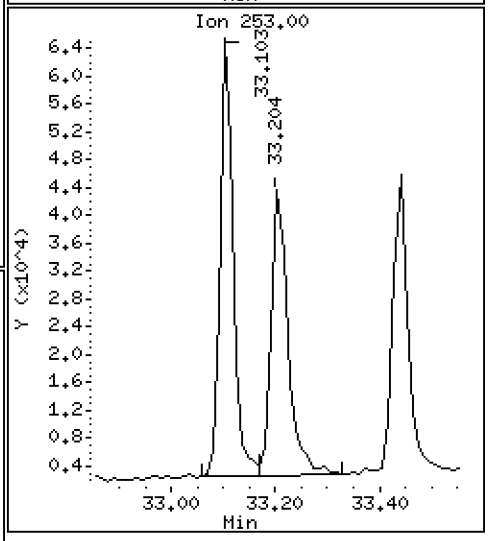
66 Benzo(a)pyrene

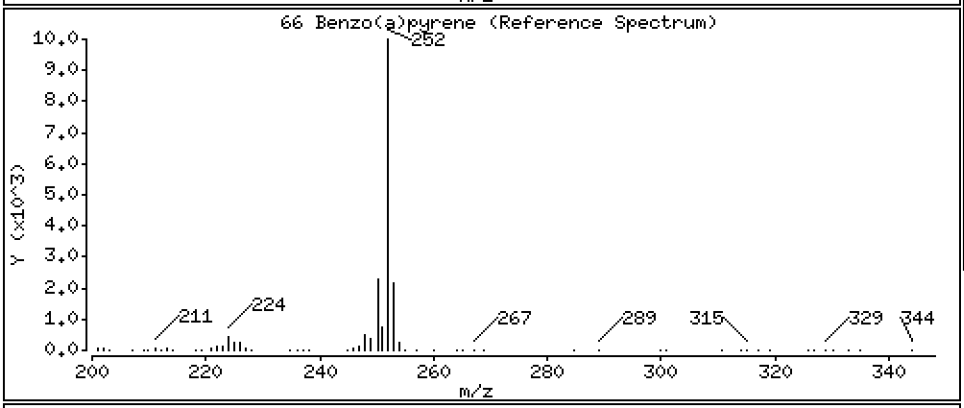
Concentration: 2.209 ug/mL

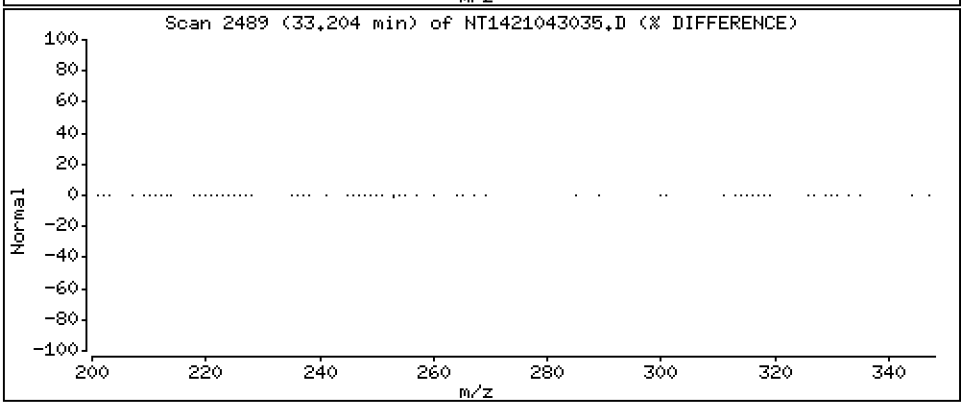












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

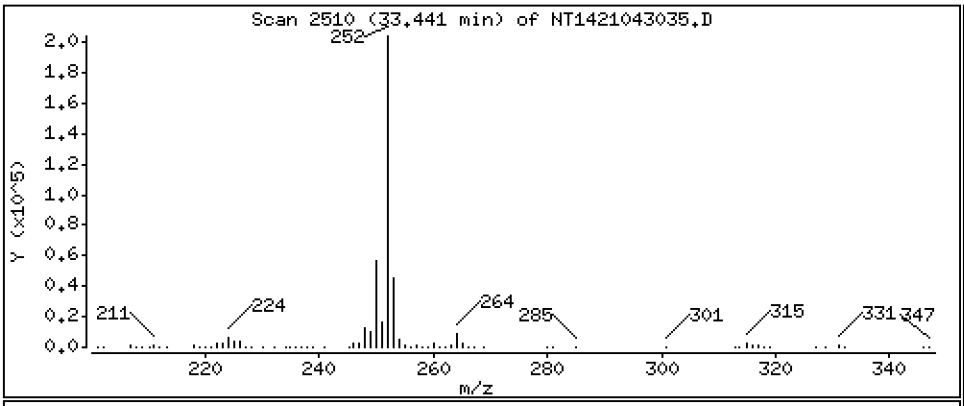
Operator: VTS

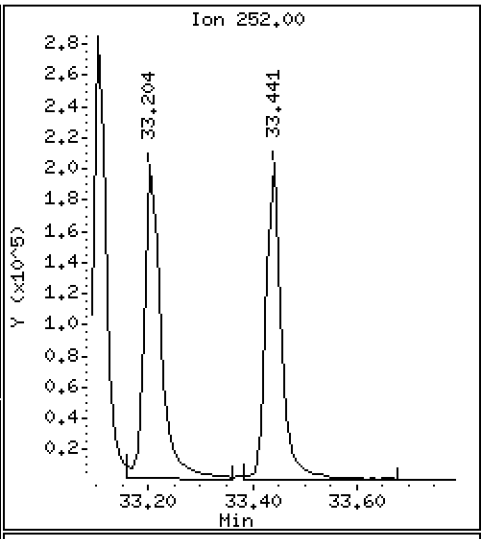
Column phase: Rxi-17Sil MS

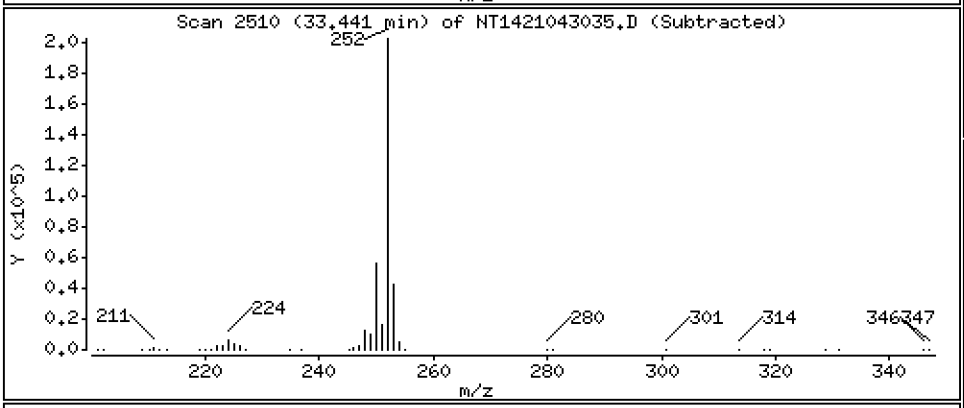
Column diameter: 0.25

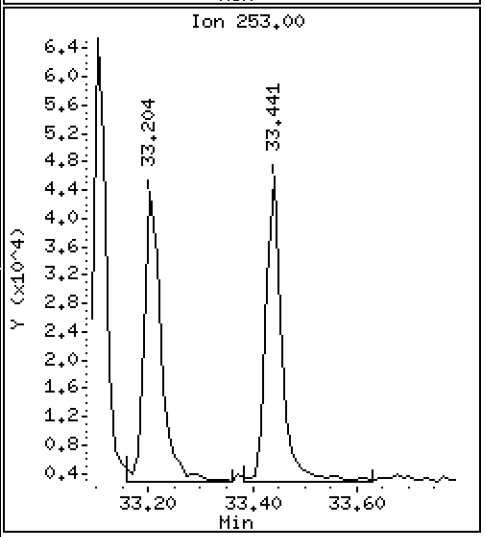
68 Perylene

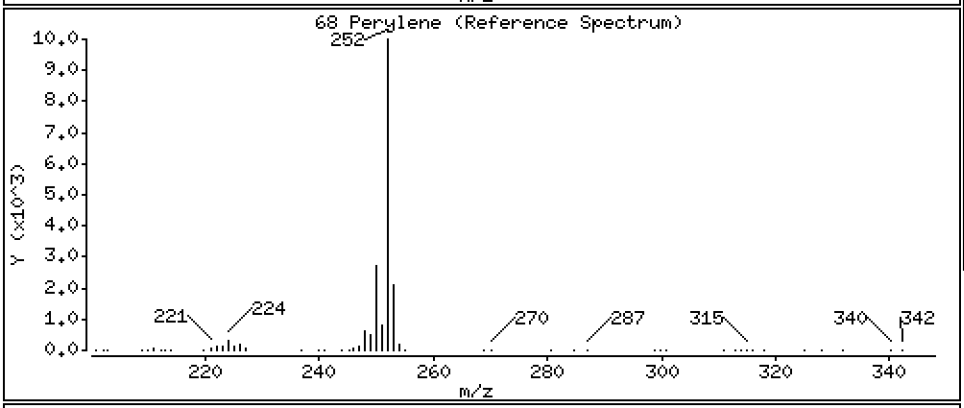
Concentration: 2.350 ug/mL

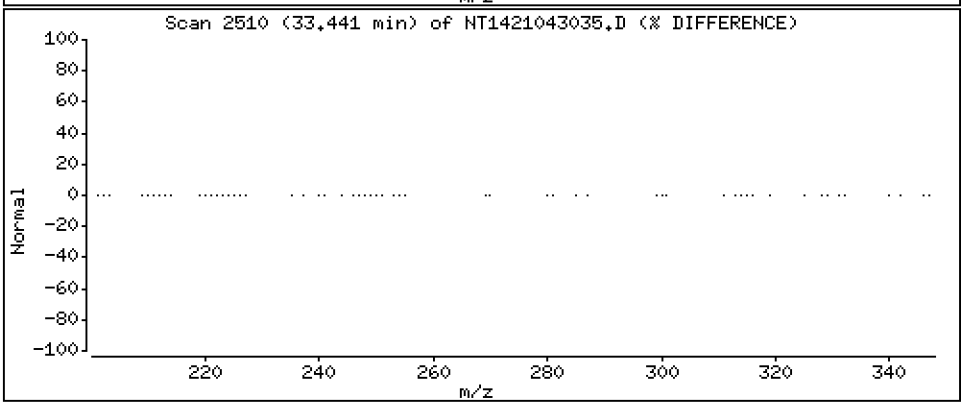












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

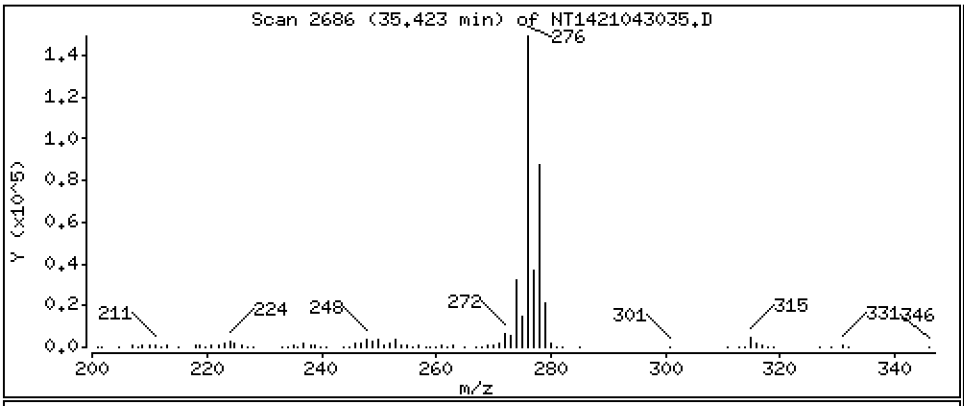
Operator: VTS

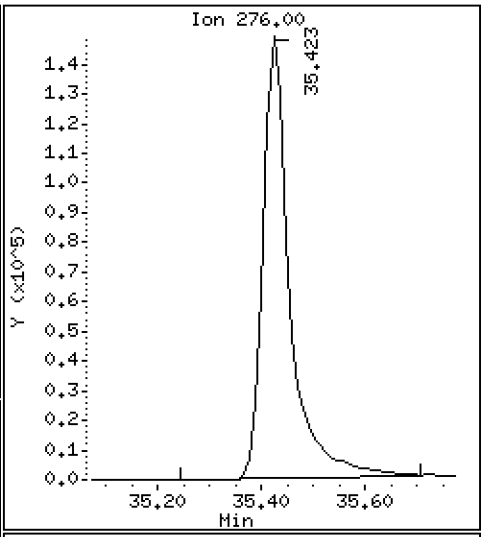
Column phase: Rxi-17Sil MS

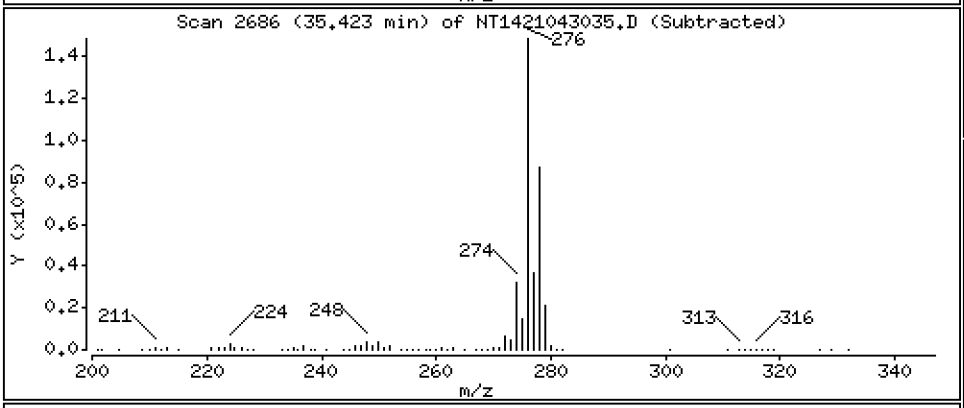
Column diameter: 0.25

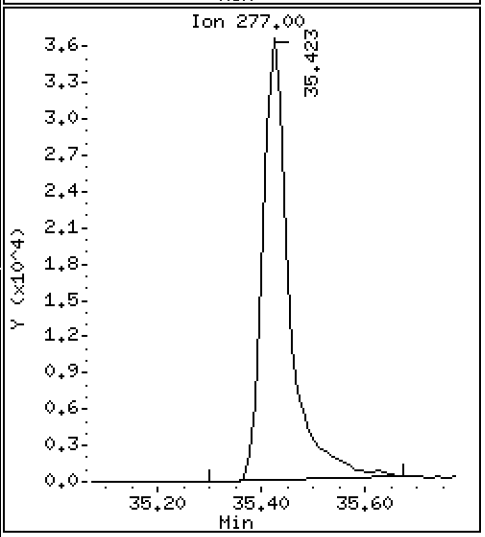
69 Indeno(1,2,3-cd)pyrene

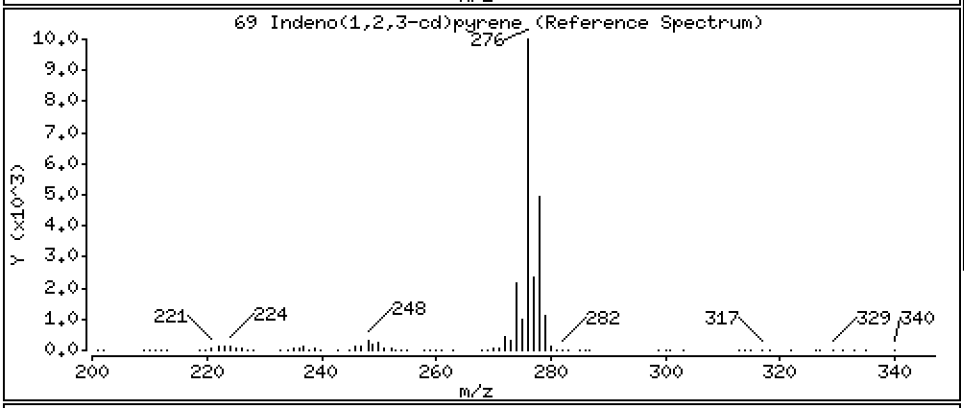
Concentration: 2.698 ug/mL

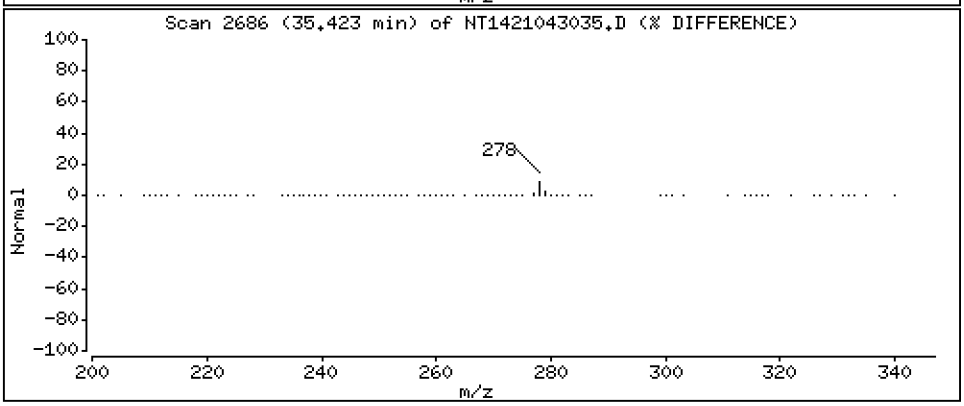












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

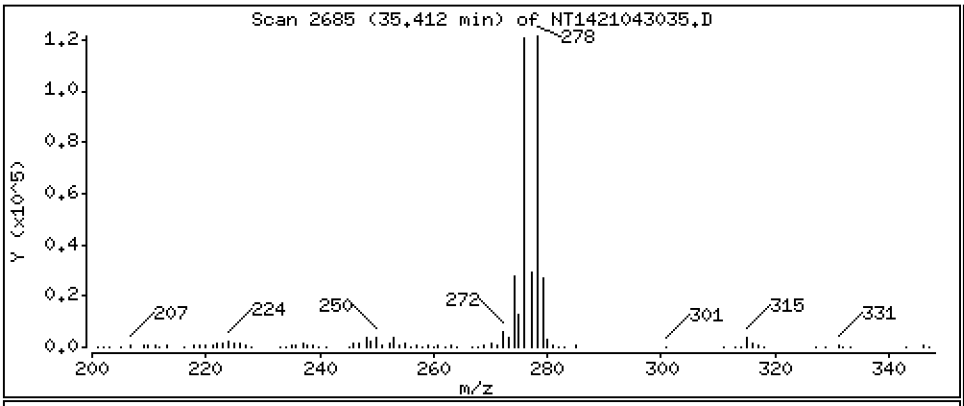
Operator: VTS

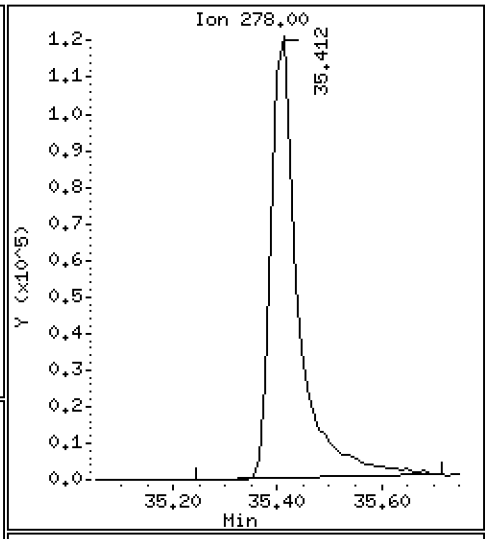
Column phase: Rxi-17Sil MS

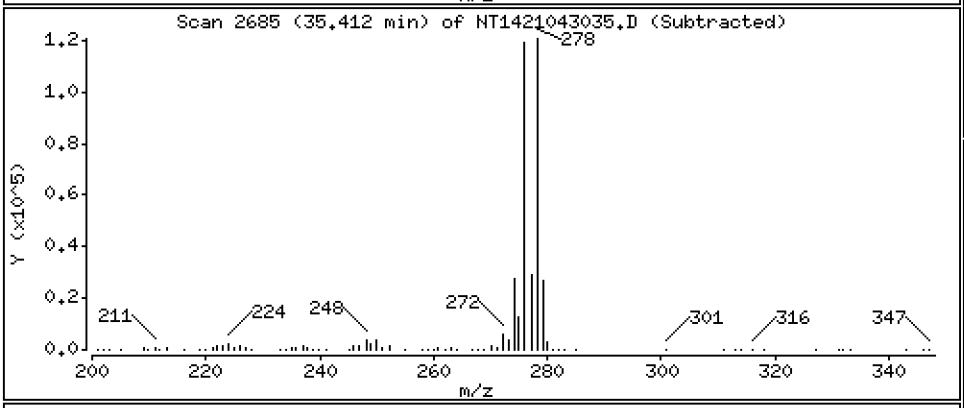
Column diameter: 0.25

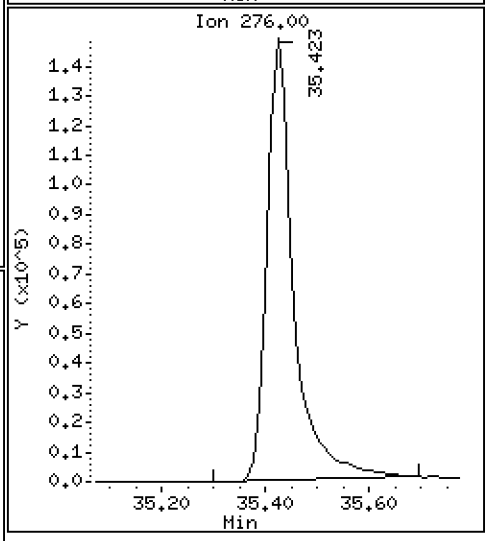
70 Dibenzo(a,h)anthracene

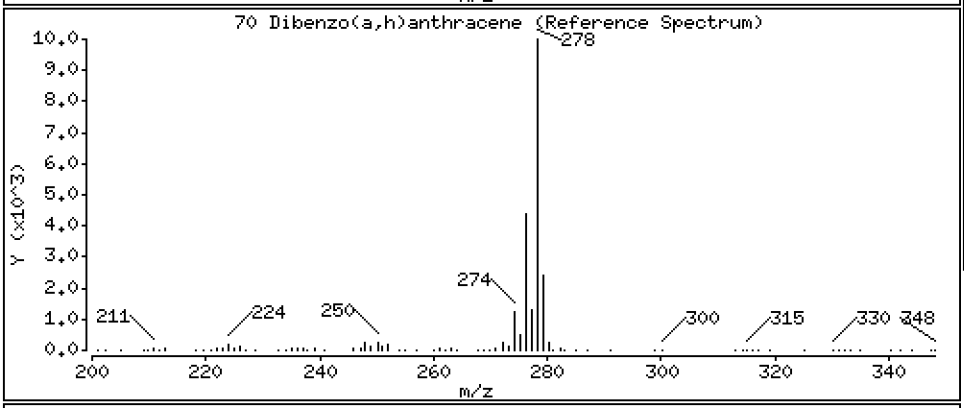
Concentration: 2.585 ug/mL

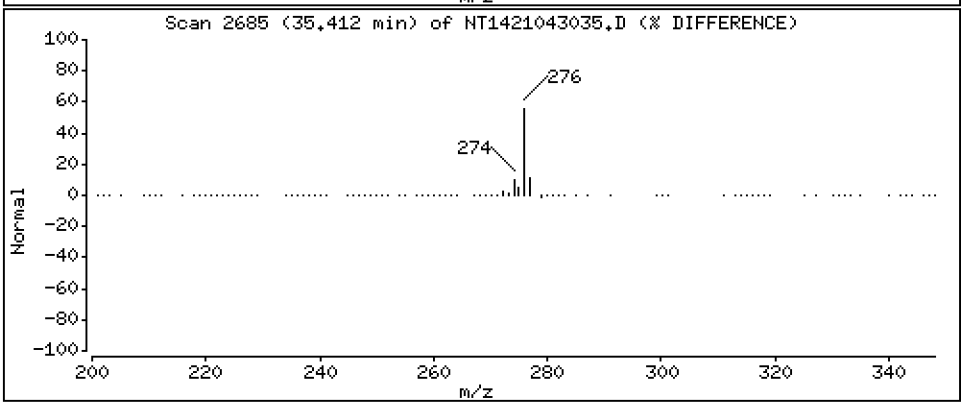












Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D

Date : 01-MAY-2021 10:46

Client ID:

Instrument: nt14.i

Sample Info: BJD0501-BSD1

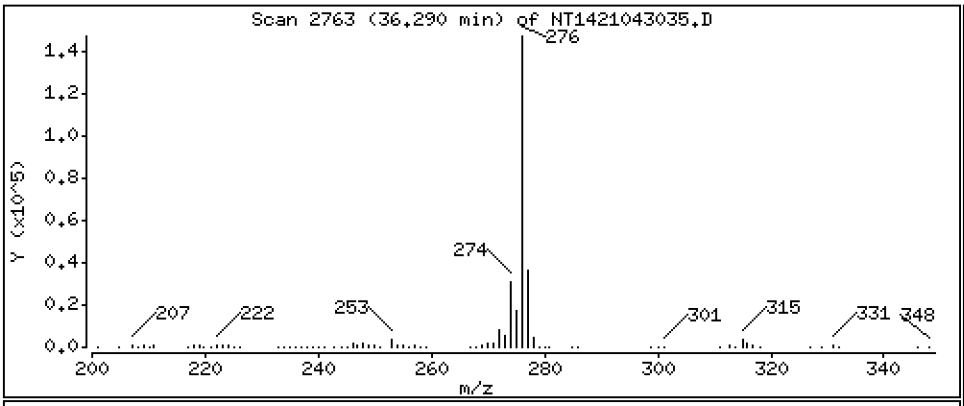
Operator: VTS

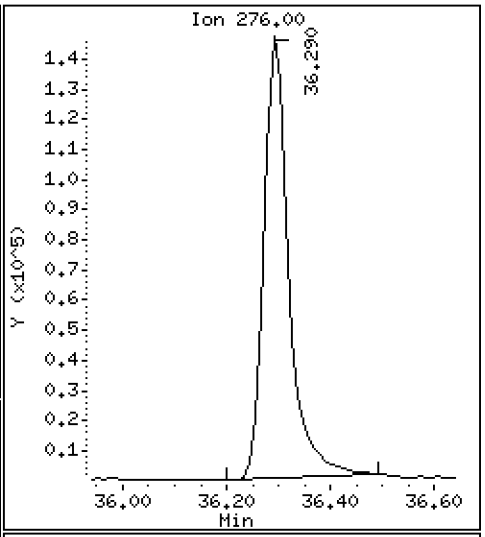
Column phase: Rxi-17Sil MS

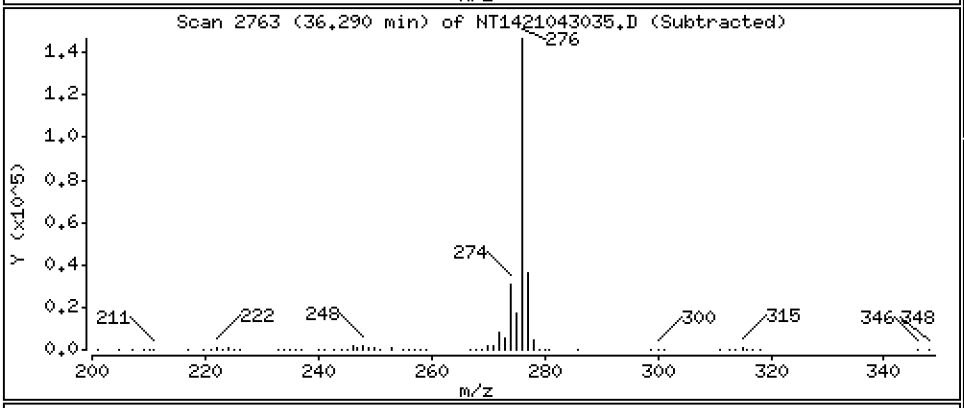
Column diameter: 0.25

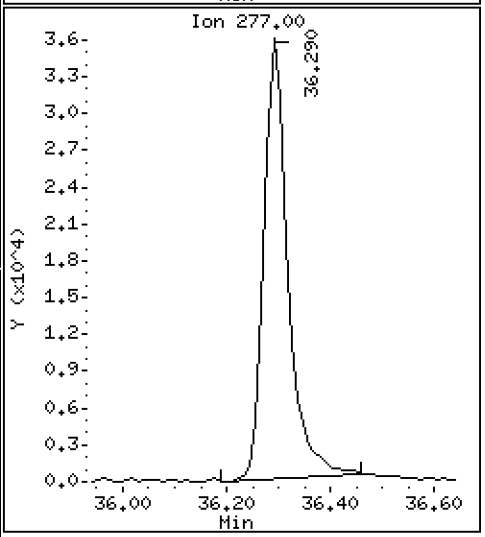
74 Benzo(g,h,i)perylene

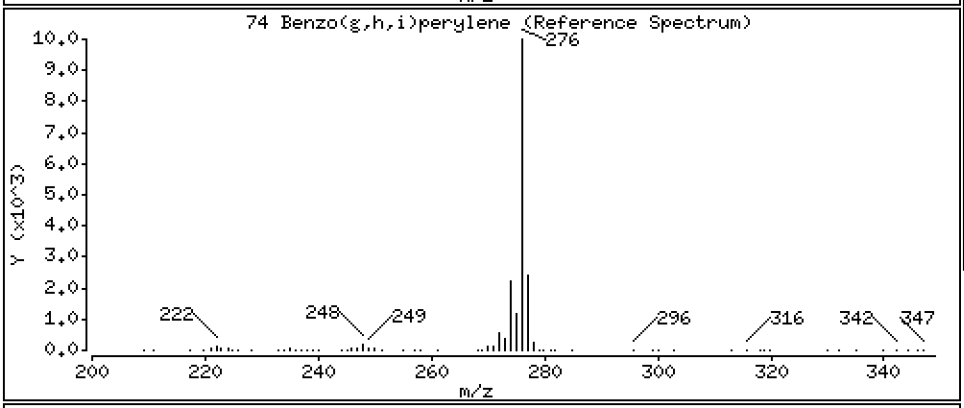
Concentration: 2.935 ug/mL

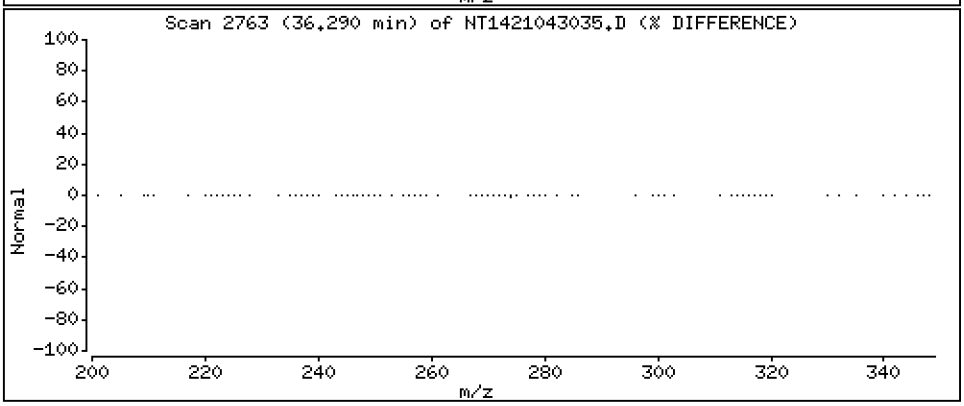












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043035.D
Lab Smp Id: BJD0501-BSD1
Inj Date : 01-MAY-2021 10:46
Operator : VTS Inst ID: nt14.i
Smp Info : BJD0501-BSD1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 07-May-2021 10:16 yev Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 31
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.035	7.045	(0.375)	61251	1.67517	1.675
	2 cis-Decalin	138	8.145	8.165	(0.434)	43872	1.73804	1.738
$	6 Naphthalene-d8	136	11.765	11.776	(0.627)	636948	2.24852	2.249(R)
	7 Naphthalene	128	11.836	11.836	(0.631)	644842	2.23800	2.238
	12 Benzo(b)thiophene	134	12.284	12.295	(0.654)	531887	2.32026	2.320
	16 2-Methylnaphthalene	141	13.669	13.680	(0.728)	355065	2.30921	2.309
	17 1-methylnaphthalene	141	14.120	14.131	(0.752)	345520	2.37164	2.372
	18 Biphenyl	154	15.306	15.318	(0.815)	533672	2.42516	2.425
	19 2,6-Dimethylnaphthalene	156	15.383	15.395	(0.820)	360455	2.38045	2.380
	20 Acenaphthylene	152	16.955	16.955	(0.903)	611449	2.56595	2.566
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	344929	2.49374	2.494(R)
	22 Acenaphthene	153	17.350	17.362	(0.924)	420347	2.74471	2.745
	23 Dibenzofuran	168	17.724	17.735	(0.944)	609616	2.62695	2.627
	24 1,6,7-Trimethylnaphthalene	170	17.955	17.966	(0.956)	372500	2.80303	2.803
*	25 Fluorene-d10	176	18.772	18.772	(1.000)	490853	2.00000	
	26 Fluorene	166	18.874	18.885	(1.005)	472969	2.80443	2.804
	30 Dibenzothiophene	184	21.785	21.796	(1.161)	495582	2.32783	2.328
$	35 Phenanthrene-d10	188	22.104	22.104	(0.995)	547875	2.33897	2.339(R)
	36 Phenanthrene	178	22.181	22.181	(0.999)	671495	2.56779	2.568
*	250 Anthracene-d10	188	22.214	22.214	(1.000)	433458	2.00000	
	37 Anthracene	178	22.280	22.291	(1.003)	589071	2.44367	2.444
	42 Carbazole	167	23.566	23.566	(1.061)	524793	2.58375	2.584
	43 1-Methylphenanthrene	192	24.017	24.017	(1.081)	447512	2.81850	2.819
	44 Fluoranthene	202	25.985	25.996	(1.170)	629693	2.71131	2.711
	46 Pyrene	202	26.832	26.843	(1.208)	638596	2.65343	2.653
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.971	(0.907)	465999	2.43461	2.435
$	56 Chrysene-d12	240	30.095	30.095	(0.911)	375939	2.47795	2.478(R)
	57 Chrysene	228	30.163	30.163	(0.913)	543110	2.78519	2.785
	62 Benzo(b)fluoranthene	252	32.381	32.382	(0.980)	523181	2.92227	2.922
	63 Benzo(k)fluoranthene	252	32.438	32.438	(0.982)	618014	2.83792	2.838(M)
	293 Benzo(j)fluoranthene	252	32.494	32.494	(0.983)	498128	2.50798	2.508(M)
	246 Total Benzofluoranthenes	252	32.438	32.382	(0.982)	1524837	7.80642	7.806(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	417532	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	498684	2.80421	2.804
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	403535	2.20864	2.209
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	313807	1.94411	1.944(R)
68 Perylene	252	33.440	33.440	(1.012)	399218	2.35040	2.350
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.423	(1.072)	512985	2.69831	2.698(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.400	(1.072)	424086	2.58466	2.585(M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	469476	2.93456	2.935(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043035.D
Lab Smp Id: BJD0501-BSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	490853	-6.81
250 Anthracene-d10	481292	240646	962584	433458	-9.94
251 Benzo(e)pyrene-d1	486825	243413	973650	417532	-14.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043035.D

Lab ID: BJD0501-BSD1
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 10:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

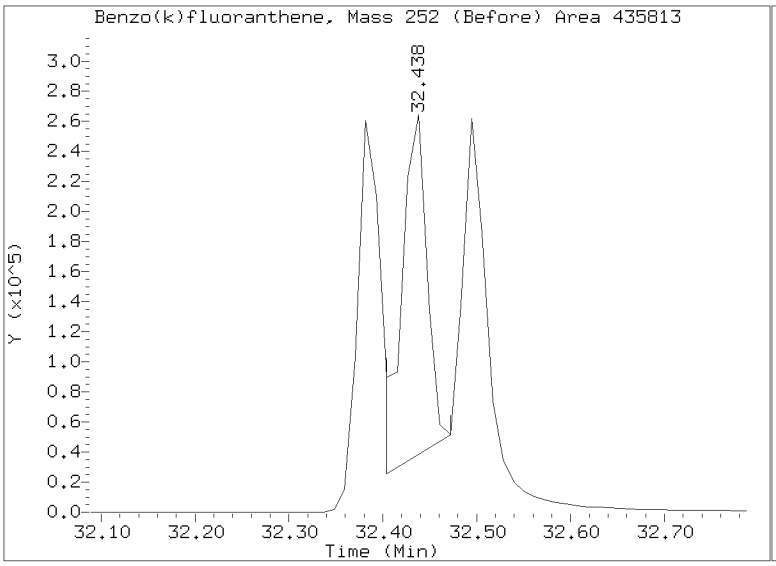
RRT check based on Ccal File: NT1421043024ICV.D

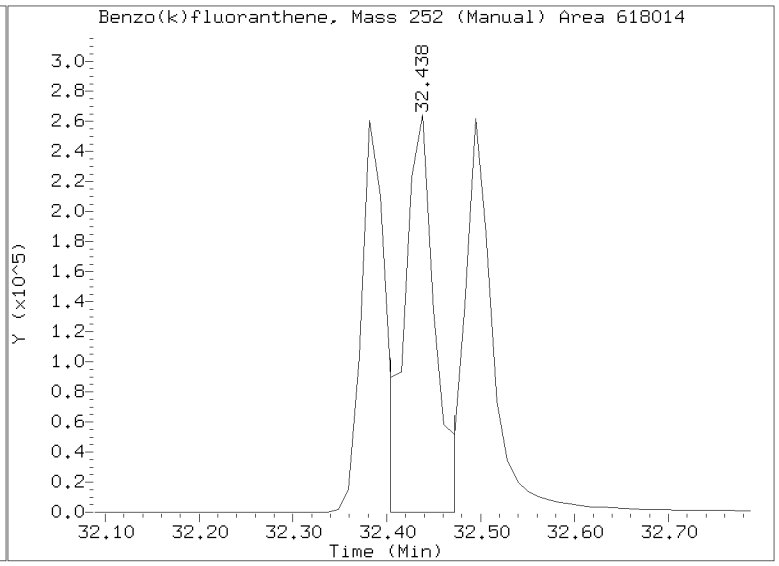
On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

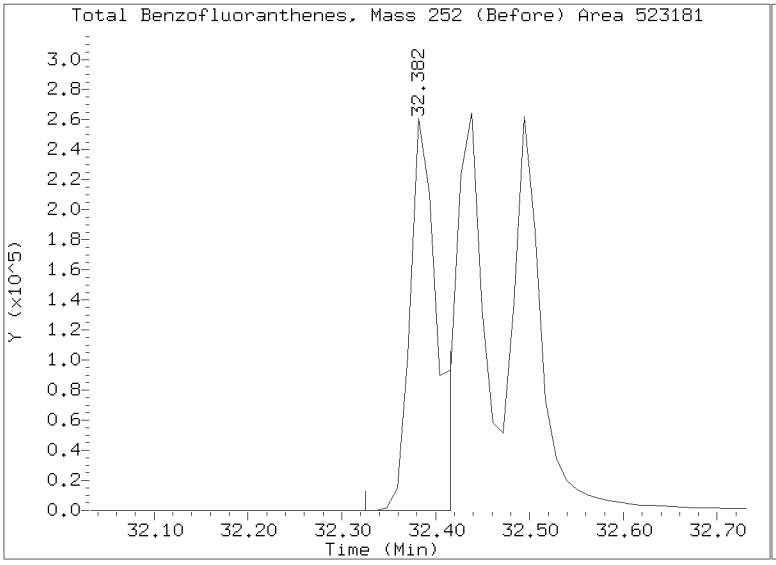
* Only compounds listed in the work order have been verified by the analyst *

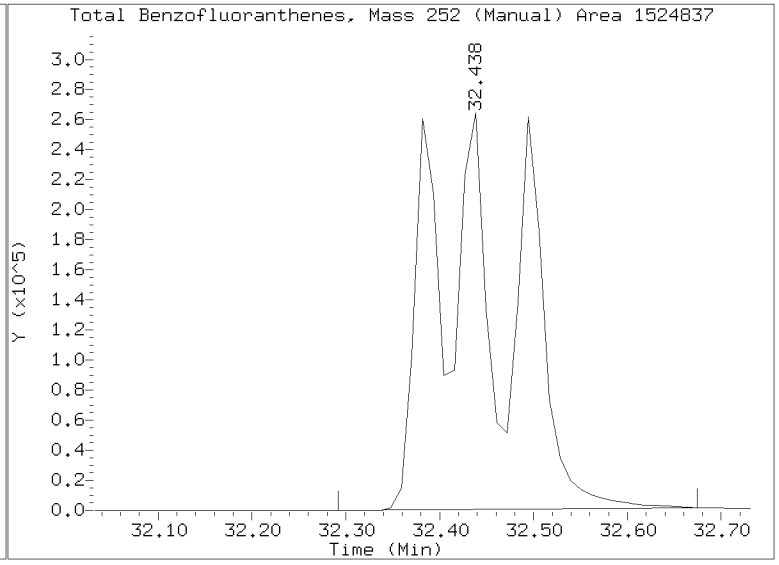
Quant Ion Manual Peak Adjustment Report

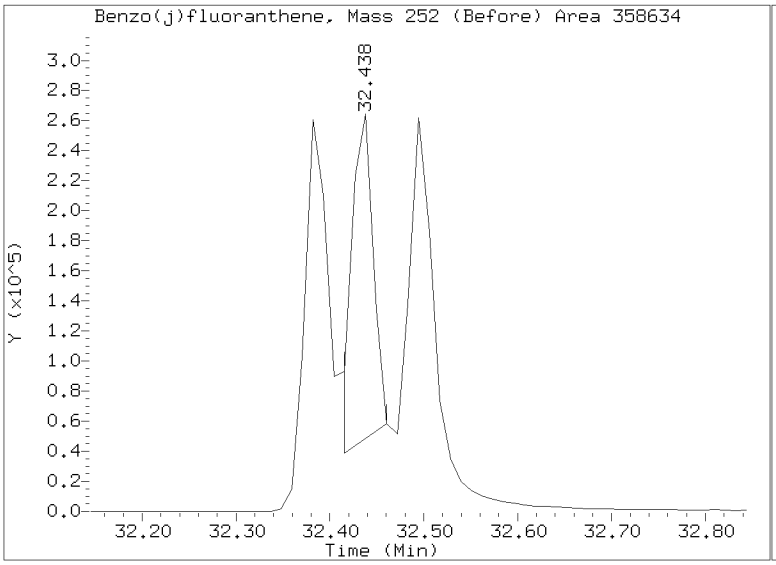
Datafile: //target/share/chem3/nt14.i/20210430B.b/NT1421043035.D
Injection Date: 01-MAY-2021 10:46
Lab ID:BJD0501-BSD1 Client ID:
Report Date: 05/07/2021 10:17

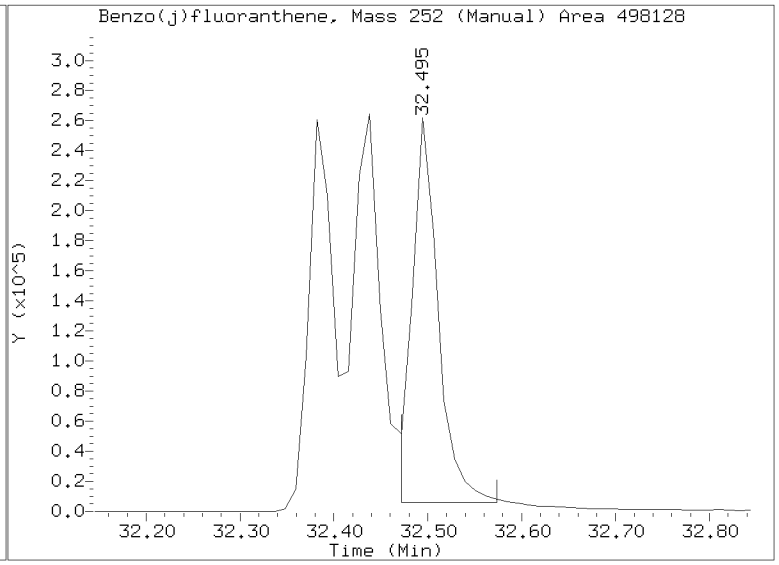












Quant Ion Manual Peak Adjustment Report

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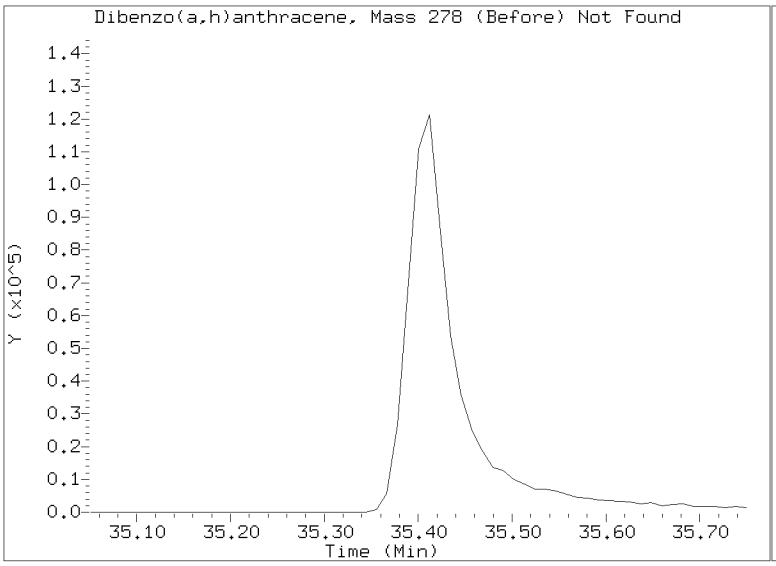
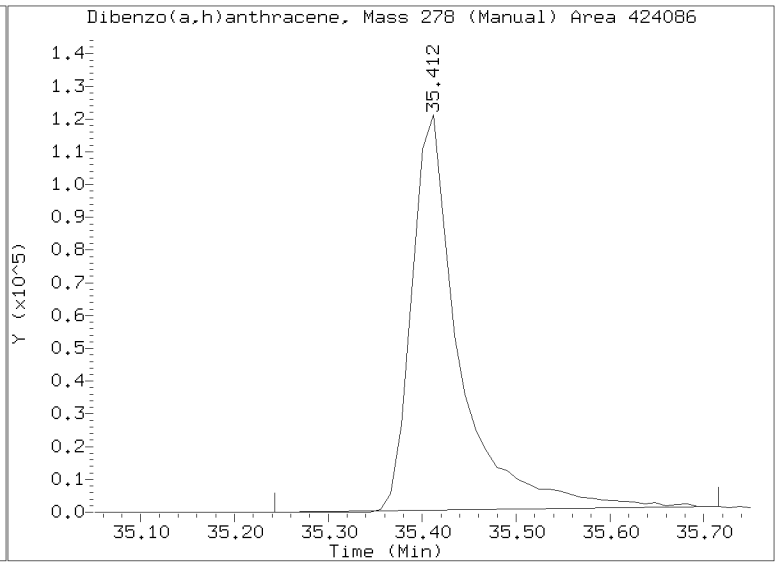
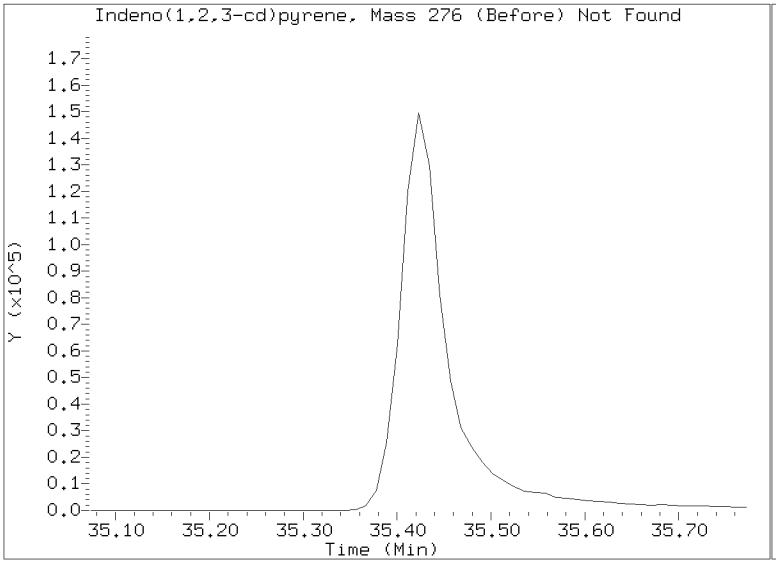
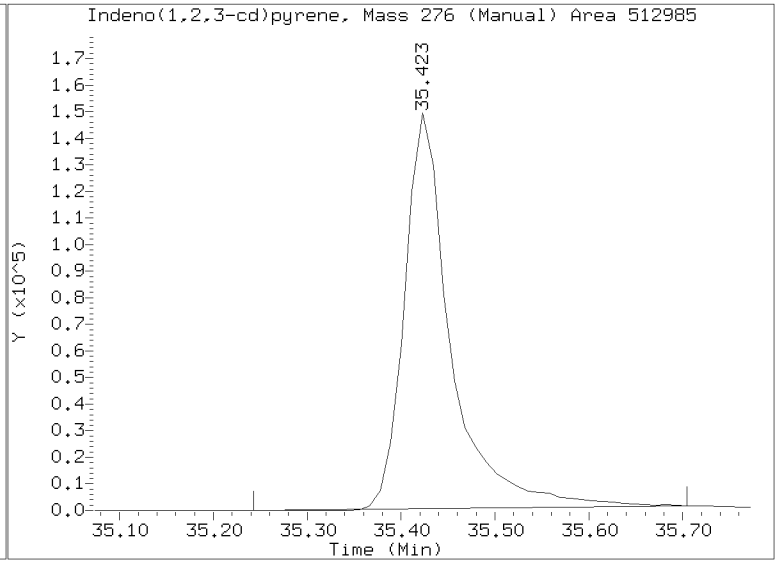
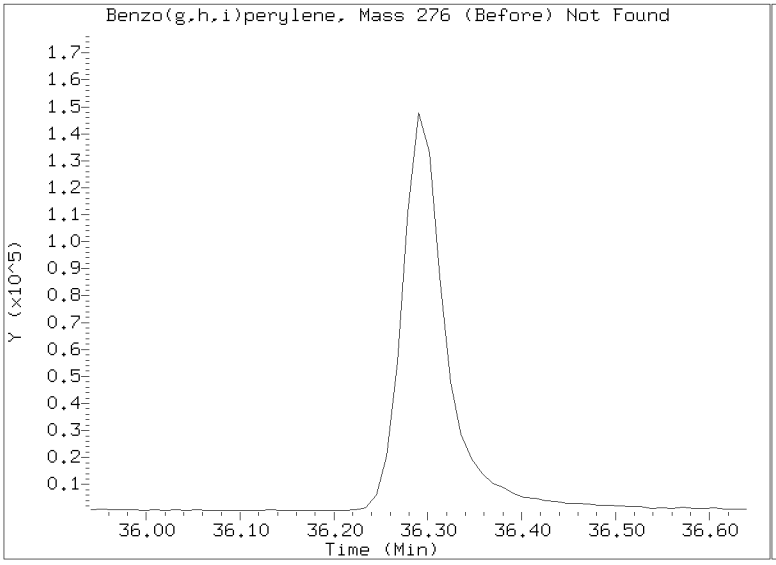
Injection Date: 01-MAY-2021 10:46
Lab ID:BJD0501-BSD1 Client ID:
Report Date: 05/07/2021 10:17

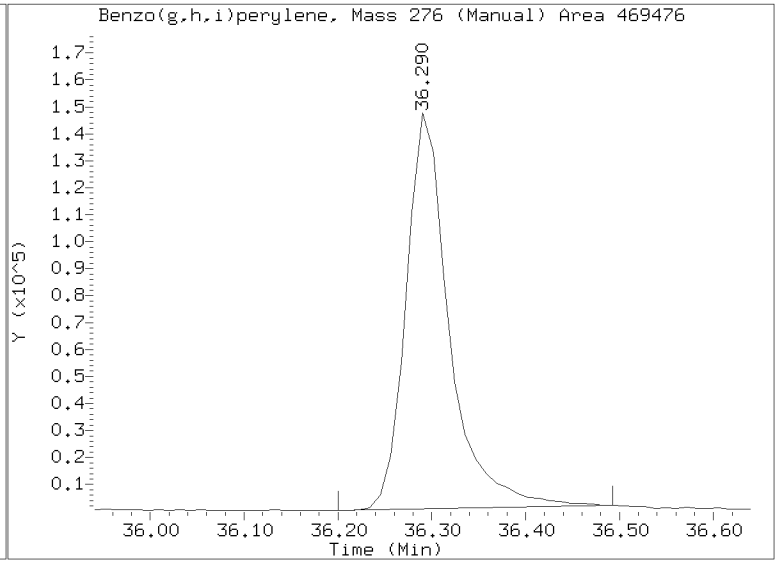












Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

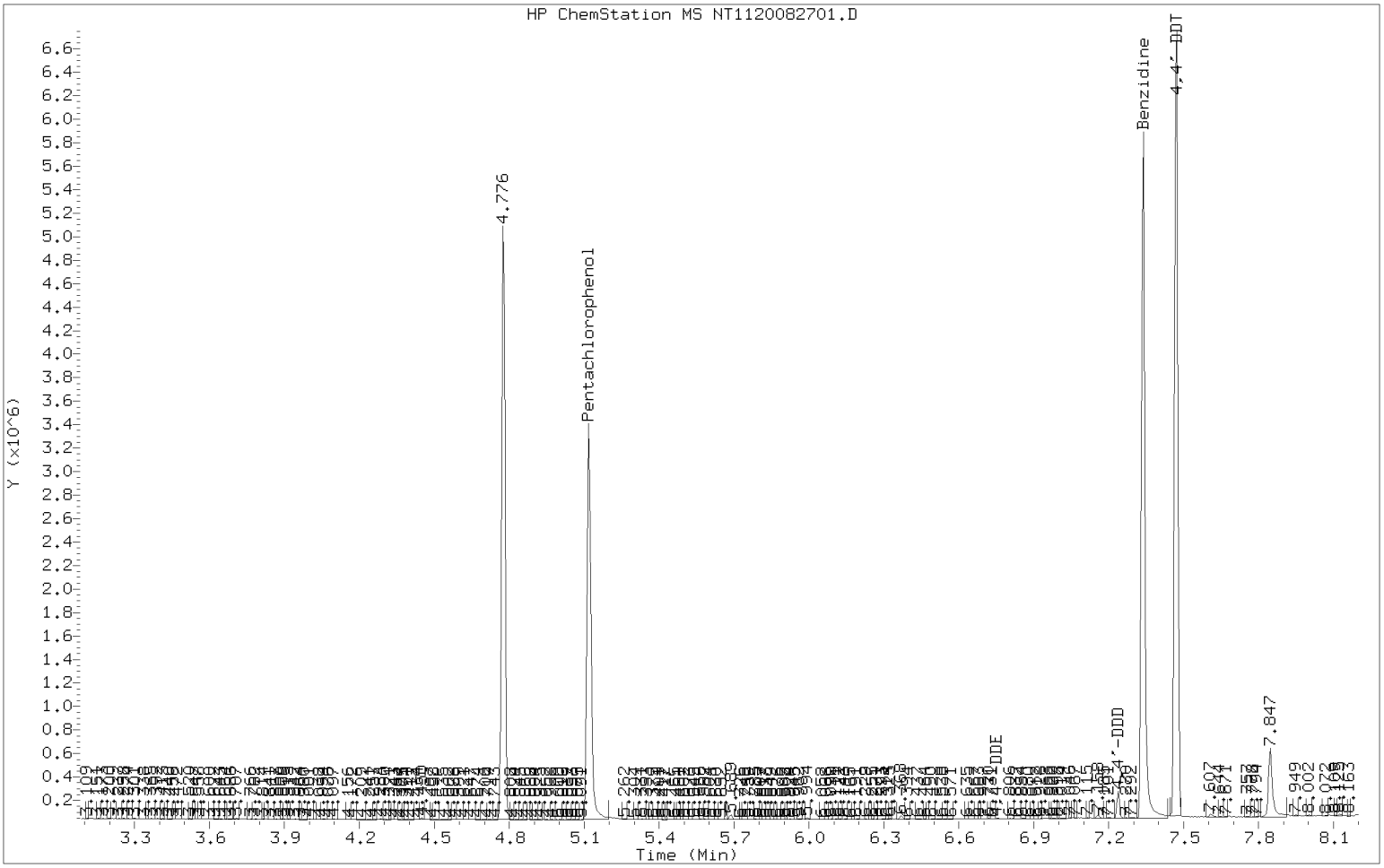
Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Lab File ID:	NT1120082701.D	Injection Date:	08/27/20
Instrument ID:	NT11	Injection Time:	12:20
Sequence:	SIH0304	Lab Sample ID:	SIH0304-TUN1

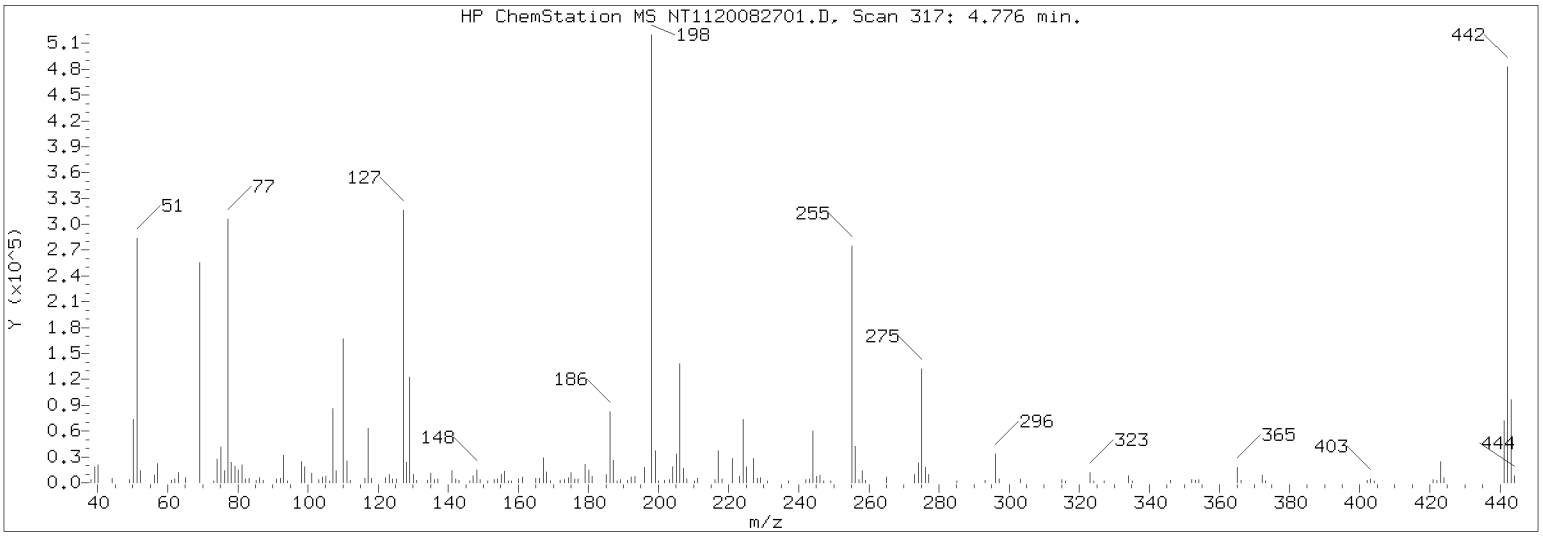
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	0	PASS
69	Less than 100% of 198	48.1	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.19	PASS
365	1 - 100% of 198	3.42	PASS
441	Less than 150% of 443	75.1	PASS
442	1 - 200% of 198	98.2	PASS
443	15 - 24% of 442	20.3	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
Cal Standard	SIH0304-CAL4	NT1120082702.D	08/27/2020	12:35
Cal Standard	SIH0304-CAL6	NT1120082703.D	08/27/2020	13:07
Cal Standard	SIH0304-CAL1	NT1120082704.D	08/27/2020	13:38
Cal Standard	SIH0304-CAL5	NT1120082705.D	08/27/2020	14:08
Cal Standard	SIH0304-CAL2	NT1120082706.D	08/27/2020	14:38
Cal Standard	SIH0304-CAL3	NT1120082707.D	08/27/2020	15:08
Secondary Cal Check	SIH0304-SCV1	NT1120082708.D	08/27/2020	15:38
Initial Cal Blank	SIH0304-ICB1	NT1120082709.D	08/27/2020	16:09

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: VTS
Sample Info: SIH0304-TUN1 SIH0304-TUN1
Report Date: 08/28/2020 09:13





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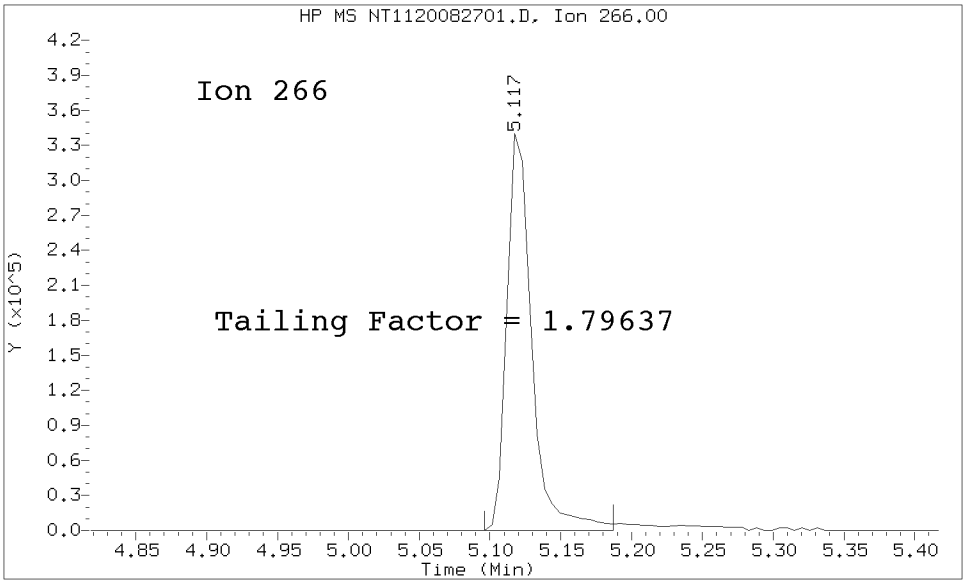
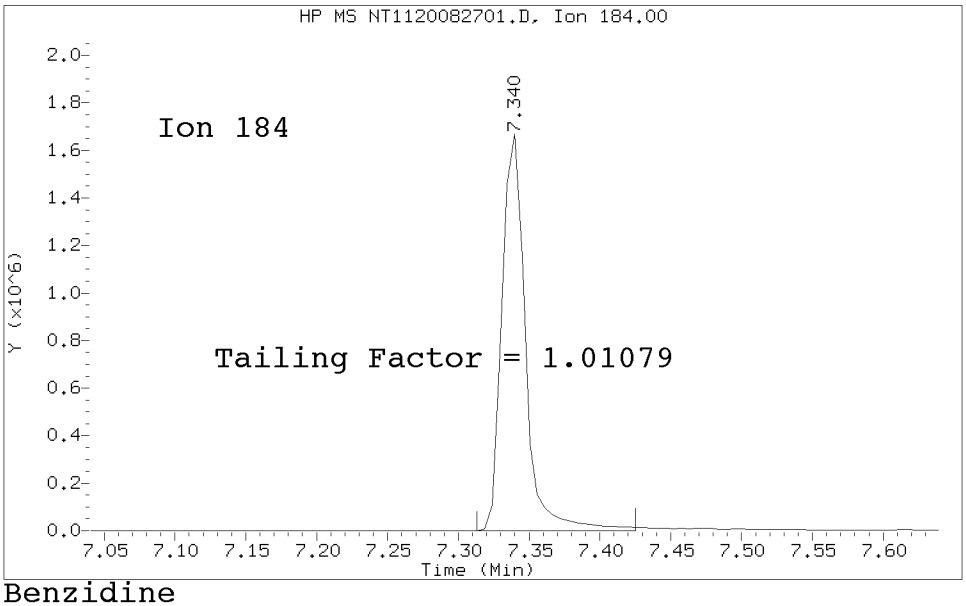
Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: JZ
Sample Info: SIH0304-TUN1
Report Date: 08/28/2020 09:13



Pentachlorophenol
==========
Exp. RT = 5.123
Found RT = 5.117

Tail Factor = 1.796 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.345
Found RT = 7.340

Tail Factor = 1.011 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7963738	2.000	PASS
Benzidine	1.0107875	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	998892			N/A
4,4-DDE	1889	0.2	20.0	PASS
4,4-DDD	41313	4.0	20.0	PASS
4,4-DDD + DDE	43202	4.1	20.0	PASS

Tuning Sample, nt11.i/20200827.b/NT1120082701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.14
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.19
365	1.00 - 100.00% of mass 198	3.42
441	Less than 150.00% of mass 443	14.99 (75.09)
442	Less than 200.00% of mass 198	98.16
443	15.00 - 24.00% of mass 442	19.96 (20.34)

Data File: NT1120082701.D
Spectrum: Avg. Scans 316-318 (4.78), Background Scan 312
Location of Maximum: 198.00
Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1941	117.00	50320	181.00	6022	256.00	34600
39.00	15485	118.00	4195	185.00	8139	257.00	2333
49.00	2696	122.00	4235	186.00	66480	258.00	12282
50.00	58784	123.00	7120	187.00	19448	259.00	1560
51.00	232000	124.00	3163	188.00	863	265.00	5119
52.00	11752	125.00	3394	189.00	3482	273.00	7663
56.00	7248	127.00	261888	191.00	1743	274.00	19792
57.00	17960	128.00	19768	192.00	5434	275.00	108560
61.00	2132	129.00	98776	193.00	5882	276.00	14774
62.00	3434	130.00	8462	196.00	14144	277.00	8657
63.00	9639	131.00	1030	198.00	427584	285.00	827
65.00	4977	134.00	2918	199.00	30744	293.00	1754
69.00	205824	135.00	8793	200.00	1923	296.00	28640
73.00	741	136.00	2894	201.00	1926	297.00	3772
74.00	21400	137.00	4091	203.00	3001	303.00	3540
75.00	33352	141.00	11851	204.00	15126	315.00	2477
76.00	11950	142.00	4210	205.00	25776	316.00	1506
77.00	251584	143.00	2814	206.00	113792	323.00	10571
78.00	17936	146.00	1656	207.00	14203	324.00	1453
79.00	14518	147.00	6952	208.00	3651	327.00	1524
80.00	11761	148.00	12680	210.00	739	334.00	6431
81.00	17192	149.00	2872	211.00	4346	335.00	1429
82.00	3943	151.00	833	216.00	2822	346.00	2166
83.00	4206	153.00	3641	217.00	28896	352.00	3275
85.00	2620	154.00	3375	218.00	3980	353.00	1910
86.00	4622	155.00	7357	221.00	23072	354.00	2621
87.00	1664	156.00	10070	222.00	1872	365.00	14621
91.00	3958	157.00	1498	223.00	6518	366.00	2204
92.00	4127	158.00	1417	224.00	61440	372.00	6406
93.00	24808	160.00	3642	225.00	14926	373.00	1390
94.00	1588	161.00	5920	227.00	23088	383.00	671
98.00	18864	165.00	4518	228.00	3791	402.00	2025
99.00	16217	166.00	3866	229.00	4874	403.00	3639
101.00	9486	167.00	23472	231.00	1648	404.00	703
103.00	2079	168.00	11061	235.00	745	421.00	3401
104.00	5375	169.00	1468	237.00	1492	422.00	2551
105.00	5151	172.00	887	242.00	2576	423.00	23288
106.00	1478	173.00	2891	243.00	3821	424.00	4186
107.00	70976	174.00	5335	244.00	48984	441.00	64096
108.00	10848	175.00	9807	245.00	6111	442.00	419712
110.00	135360	176.00	3189	246.00	7978	443.00	85360
111.00	20792	177.00	3727	247.00	704	444.00	7482
112.00	919	179.00	17984	249.00	1459		
116.00	4001	180.00	11984	255.00	224128		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270E-SIM

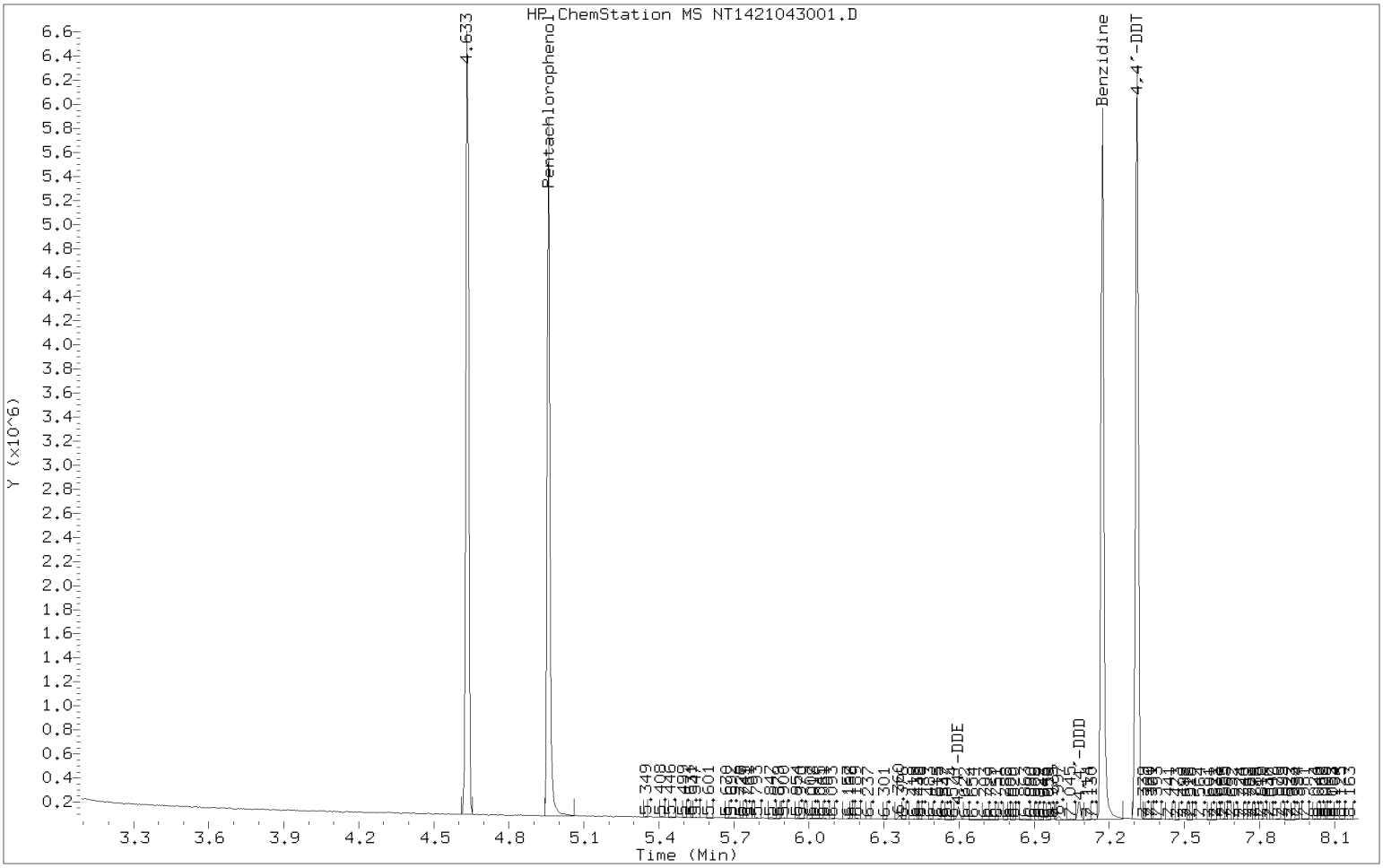
Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Lab File ID:	NT1421043001.D	Injection Date:	04/30/21
Instrument ID:	NT14	Injection Time:	07:42
Sequence:	SJD0305	Lab Sample ID:	SJD0305-TUN1

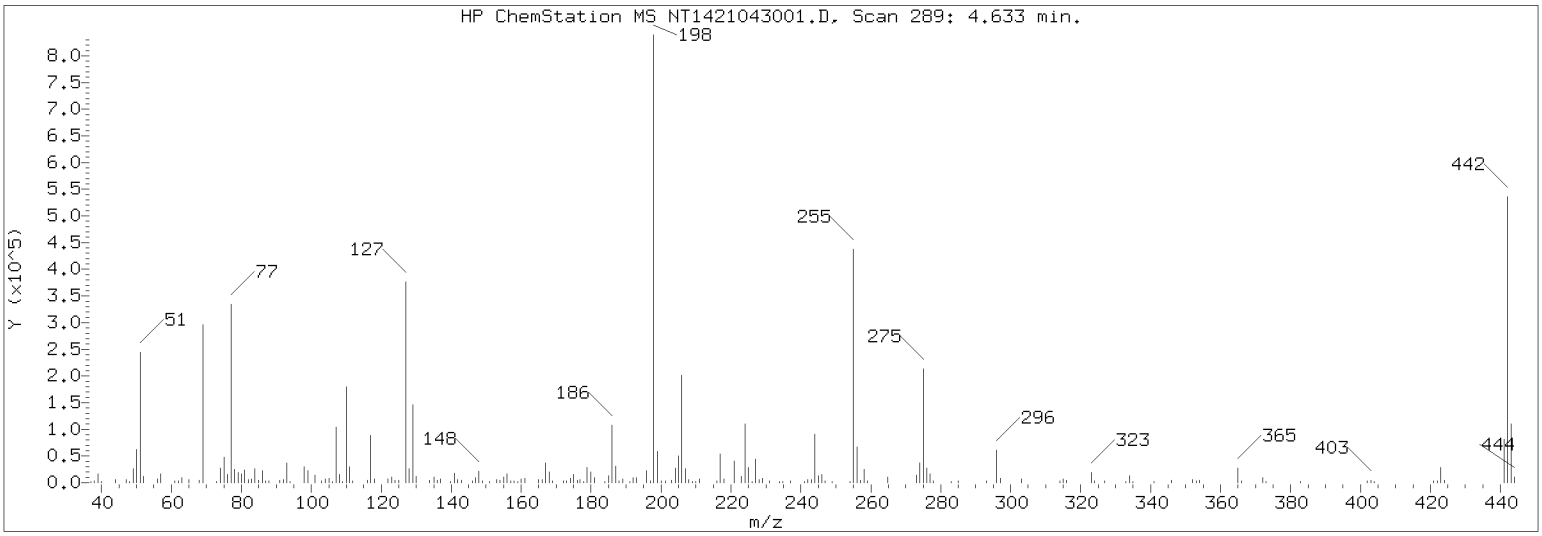
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
68	Less than 2% of 69	1.49	PASS
69	Less than 100% of 198	35.4	PASS
70	Less than 2% of 69	0	PASS
197	Less than 2% of 198	0.392	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.79	PASS
365	1 - 100% of 198	3.67	PASS
441	Less than 150% of 443	73.7	PASS
442	1 - 200% of 198	76.4	PASS
443	15 - 24% of 442	19.9	PASS
4,4'-DDD	Less than 20% of 4,4'-DDT		
4,4'-DDE	Less than 20% of 4,4'-DDT		
4,4'-DDT	Base peak, 100% relative abundance		

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SJD0305-TUN1	NT1421043001.D	04/30/2021	7:42
Cal Standard	SJD0305-CAL5	NT1421043002.D	04/30/2021	7:56
Cal Standard	SJD0305-CAL7	NT1421043003.D	04/30/2021	8:43
Cal Standard	SJD0305-CAL6	NT1421043005.D	04/30/2021	10:19
Cal Standard	SJD0305-CAL2	NT1421043006.D	04/30/2021	11:07
Cal Standard	SJD0305-CAL4	NT1421043007.D	04/30/2021	11:55
Cal Standard	SJD0305-CAL3	NT1421043008.D	04/30/2021	12:43
Cal Standard	SJD0305-CAL1	NT1421043009.D	04/30/2021	13:32
Secondary Cal Check	SJD0305-SCV1	NT1421043010.D	04/30/2021	14:41
Initial Cal Blank	SJD0305-ICB1	NT1421043011.D	04/30/2021	15:29

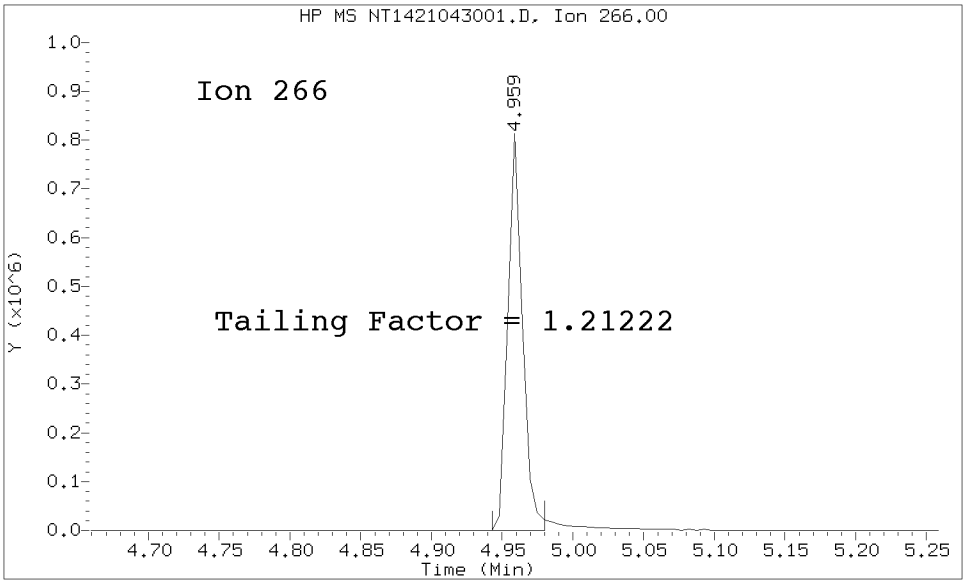
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: VTS
Sample Info: SJD0305-TUN1 SJD0305-TUN1
Report Date: 05/01/2021 09:19



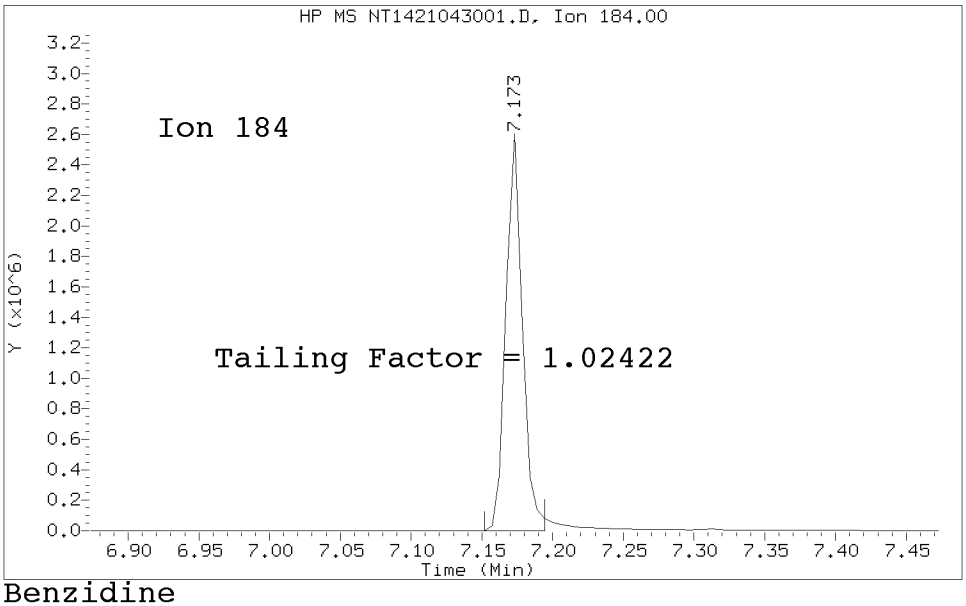


Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: JZ
Sample Info: SJD0305-TUN1
Report Date: 05/01/2021 09:19



Pentachlorophenol
==========
Exp. RT = 4.900
Found RT = 4.959

Tail Factor = 1.212 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.114
Found RT = 7.173

Tail Factor = 1.024 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2122241	2.000	PASS
Benzidine	1.0242165	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1038588			N/A
4,4-DDE	14738	1.4	20.0	PASS
4,4-DDD	33747	3.1	20.0	PASS
4,4-DDD + DDE	48485	4.5	20.0	PASS

Tuning Sample, nt14.i/20210430.b/NT1421043001.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.53 (1.49)
69	Mass 69 relative abundance	35.45
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.79
365	1.00 - 100.00% of mass 198	3.67
441	Less than 150.00% of mass 443	11.21 (73.74)
442	Less than 200.00% of mass 198	76.36
443	15.00 - 24.00% of mass 442	15.20 (19.91)

Data File: NT1421043001.D
Spectrum: Avg. Scans 288-290 (4.63), Background Scan 284
Location of Maximum: 198.00
Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2307	117.00	64224	186.00	79176	257.00	2873
38.00	1830	118.00	4688	187.00	23080	258.00	19488
39.00	13134	122.00	4775	188.00	1825	259.00	2625
40.00	233	123.00	7561	189.00	5004	265.00	7710
47.00	375	124.00	3436	191.00	1578	273.00	10495
50.00	46288	125.00	3193	192.00	6850	274.00	27888
51.00	173248	127.00	273024	193.00	7431	275.00	158080
52.00	9018	128.00	20160	196.00	16480	276.00	21120
56.00	5264	129.00	104904	197.00	2428	277.00	13058
57.00	12144	130.00	9057	198.00	618880	278.00	1985
61.00	1175	134.00	2970	199.00	42008	283.00	679
62.00	2696	135.00	8307	200.00	2535	285.00	2051
63.00	7970	136.00	2593	201.00	2065	293.00	2424
65.00	4088	137.00	4775	203.00	3878	296.00	47472
68.00	3274	140.00	673	204.00	20656	297.00	6386
69.00	219392	141.00	13472	205.00	37136	303.00	4653
73.00	771	142.00	4294	206.00	149440	314.00	1930
74.00	20872	143.00	2219	207.00	19336	315.00	5268
75.00	34640	146.00	2025	208.00	4570	316.00	2553
76.00	11486	147.00	6393	209.00	683	321.00	692
77.00	245888	148.00	15704	210.00	1839	323.00	15144
78.00	17552	149.00	3399	211.00	5848	324.00	2307
79.00	14928	151.00	851	216.00	2548	327.00	2437
80.00	12053	153.00	4256	217.00	40440	328.00	823
81.00	17736	154.00	3418	218.00	5055	333.00	1386
82.00	4592	155.00	8190	221.00	31424	334.00	10030
83.00	4982	156.00	11993	222.00	3423	335.00	2126
85.00	3705	157.00	1035	223.00	8830	341.00	1445
86.00	3968	158.00	1779	224.00	82552	346.00	3529
87.00	1821	159.00	1518	225.00	20728	352.00	3927
88.00	1052	160.00	4437	226.00	1789	353.00	2529
91.00	3845	161.00	6138	227.00	32848	354.00	3631
92.00	4275	165.00	4964	228.00	4338	365.00	22720
93.00	27984	166.00	4331	229.00	7036	366.00	2657
94.00	830	167.00	27584	231.00	2550	372.00	7576
98.00	20864	168.00	15655	234.00	1752	373.00	1628
99.00	17616	169.00	2066	235.00	1972	383.00	1853
101.00	10467	172.00	2038	237.00	2335	402.00	2788
103.00	2694	173.00	3160	241.00	1773	403.00	3626
104.00	5772	174.00	6117	242.00	4477	404.00	1482
105.00	5608	175.00	11419	243.00	4863	421.00	3059
106.00	882	176.00	2467	244.00	67984	422.00	2988
107.00	76520	177.00	4558	245.00	9224	423.00	24400
108.00	11732	178.00	721	246.00	12110	424.00	4104
109.00	835	179.00	21768	247.00	2181	441.00	69376
110.00	130600	180.00	14376	249.00	1945	442.00	472576
111.00	20592	181.00	7245	254.00	1631	443.00	94080
112.00	1824	184.00	832	255.00	328512	444.00	8551
116.00	3803	185.00	9659	256.00	49696		

+------------------+------------------+------------------+------------------+

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DH00073	Instrument:	NT11
Calibration Date:	08/27/2020	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		**RRF**		**RRF**		**RRF**		**RRF**		**RRF**
2-Methylnaphthalene-d10	10	0.9029176	50	0.7864943	100	0.7919638	250	0.7913808	500	0.7899229	1000	0.7624283
Dibenzo[a,h]anthracene-d14	10	0.6264958	50	0.5491311	100	0.5924731	250	0.785253	500	0.8175077	1000	0.8503878
Fluoranthene-d10	10	1.155991	50	1.05095	100	1.079208	250	1.02859	500	1.010169	1000	0.9664667

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	DH00073	Instrument:	NT11
Calibration Date:	08/27/2020	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
2-Methylnaphthalene-d10	0.8041846	6.2			RSD (15)	
Dibenzo[a,h]anthracene-d14	0.7035414	18.4		0.9989	QCOD (0.99)	
Fluoranthene-d10	1.048562	6.2			RSD (15)	

Printed: 8/28/2020 9:29:05AM

ANALYSIS SEQUENCE

SIH0304

Instrument: NT11 Element Column ID: I005862
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIH0304-TUN1	DFTPP	QC		1	I007631		
SIH0304-CAL4	PAH 250	QC		2	I004578	I002616	
SIH0304-CAL6	PAH 1000	QC		3	I004580	I002616	
SIH0304-CAL1	PAH 10	QC		4	I004575	I002616	
SIH0304-CAL5	PAH 500	QC		5	I004579	I002616	
SIH0304-CAL2	PAH 50	QC		6	I004576	I002616	
SIH0304-CAL3	PAH 100	QC		7	I004577	I002616	
SIH0304-SCV1	PAH 250 SCV	QC		8	I004581	I002616	
SIH0304-ICB1	Initial Cal Blank	QC		9	I007632	I002616	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

	Time	Filename	LabID	ClientId	DF									
1	1220	NT1120082701.D	SIH0304-TUN1		1	|NO ISTDS FOUND||								
2	1235	NT1120082702.D	SIH0304-CAL4		1	6.81	215332	9.81	102217	12.48	170387	17.21	116138	19.98	139038
3	1307	NT1120082703.D	SIH0304-CAL6		1	6.81	211963	9.81	104596	12.48	173851	17.21	118274	19.98	139375
4	1338	NT1120082704.D	SIH0304-CAL1		1	6.80	218979	9.81	96342	12.48	152977	17.21	94808	19.98	108221
5	1408	NT1120082705.D	SIH0304-CAL5		1	6.80	205773	9.81	98118	12.48	160808	17.21	104617	19.98	121661
6	1438	NT1120082706.D	SIH0304-CAL2		1	6.80	206491	9.81	90319	12.48	134229	17.21	84619	19.98	93566
7	1508	NT1120082707.D	SIH0304-CAL3		1	6.80	198254	9.81	88696	12.48	133333	17.21	84043	19.98	92362
8	1538	NT1120082708.D	SIH0304-SCV1		1	6.80	202035	9.81	90189	12.48	142829	17.22	104063	19.98	119273
9	1609	NT1120082709.D	SIH0304-ICB1		1	6.80	216694	9.81	94656	12.48	145070	17.22	97049	19.98	107633

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Instrument: nt11.i Date: 27-AUG-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1220	NT1120082701.D	SIH0304-TUN1	1	NO MANUAL INTEGRATION
1235	NT1120082702.D	SIH0304-CAL4	1	NO MANUAL INTEGRATION
1307	NT1120082703.D	SIH0304-CAL6	1	NO MANUAL INTEGRATION
1338	NT1120082704.D	SIH0304-CAL1	1	Dibenzo(a,h)anthracene-d14,
1408	NT1120082705.D	SIH0304-CAL5	1	NO MANUAL INTEGRATION
1438	NT1120082706.D	SIH0304-CAL2	1	NO MANUAL INTEGRATION
1508	NT1120082707.D	SIH0304-CAL3	1	NO MANUAL INTEGRATION
1538	NT1120082708.D	SIH0304-SCV1	1	NO MANUAL INTEGRATION
1609	NT1120082709.D	SIH0304-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Aug-2020 09:31

NT1120082701.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082702.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082703.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082704.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082705.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082706.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082707.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082708.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082709.D	Data Locked	van, 28-Aug-2020 09:31

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
End Cal Date : 27-AUG-2020 15:08
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Last Edit : 28-Aug-2020 06:57 van

Calibration File Names:
Level 1: \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D
Level 2: \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
Level 3: \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
Level 4: \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D
Level 5: \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D
Level 6: \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
2 Naphthalene	1.43621	1.14060	1.17661	1.10851	1.08175	1.02380	AVRG		1.16125		12.43511
3 Benzo(b)thiophene	1.01982	0.89891	0.92051	0.90965	0.89317	0.85470	AVRG		0.91612		6.06011
5 2-Methylnaphthalene	1.11846	0.88608	0.93699	0.90890	0.89646	0.86994	AVRG		0.93614		9.84242
6 1-Methylnaphthalene	1.04229	0.82438	0.87082	0.84063	0.83489	0.80825	AVRG		0.87021		9.97489
7 2-Chloronaphthalene	2.16915	1.70967	1.79402	1.62895	1.62617	1.52260	AVRG		1.74176		13.10572
8 Biphenyl	2.71263	2.38098	2.39149	2.23582	2.20287	1.99081	AVRG		2.31910		10.42321
9 2,6-Dimethylnaphthalene	1.92979	1.70950	1.73631	1.69093	1.68439	1.57322	AVRG		1.72069		6.77971
10 Acenaphthylene	2.83781	2.22367	2.35109	2.20763	2.14616	2.00101	AVRG		2.29456		12.61731
12 Acenaphthene	1.86315	1.47030	1.55349	1.43733	1.42937	1.35187	AVRG		1.51758		11.95682
13 Dibenzofuran	2.49839	1.99577	2.10093	1.92945	1.88910	1.74104	AVRG		2.02578		12.85253
14 2,3,5-Trimethylnaphthalene	1.37053	1.18930	1.24903	1.25307	1.23113	1.18286	AVRG		1.24599		5.44230
16 Fluorene	1.90135	1.48040	1.58690	1.50470	1.48961	1.39974	AVRG		1.56045		11.36570
17 Dibenzothiophene	1.24764	1.12307	1.13522	1.07953	1.06202	0.99612	AVRG		1.10727		7.65313
19 Phenanthrene	1.59357	1.28160	1.37535	1.23811	1.23454	1.12677	AVRG		1.30833		12.32026

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
End Cal Date : 27-AUG-2020 15:08
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Last Edit : 28-Aug-2020 06:57 van

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
21 Anthracene	1.57043	1.30979	1.40025	1.21461	1.20516	1.14319	AVRG		1.30724		12.03906
22 Carbazole	1.66195	1.28917	1.39778	1.39382	1.35147	1.26363	AVRG		1.39297		10.23339
23 1-Methylphenanthrene	1.25849	1.16163	1.19639	1.12489	1.12424	1.06849	AVRG		1.15569		5.71372
25 Fluoranthene	1.53526	1.26610	1.39548	1.23415	1.23492	1.16036	AVRG		1.30438		10.48767
26 Pyrene	1.64443	1.29275	1.41759	1.25973	1.24465	1.16994	AVRG		1.33818		12.74184
27 Benzo(a)anthracene	1.75386	1.29474	1.45033	1.44286	1.46770	1.40542	AVRG		1.46915		10.39375
29 Chrysene	2.05679	1.56825	1.72338	1.51943	1.58325	1.47446	AVRG		1.65426		12.95809
30 Benzo(b)fluoranthene	1.29513	0.84962	0.97033	1.11751	1.15744	1.14168	AVRG		1.08862		14.35727
31 Benzo(k)fluoranthene	1.69006	1.29795	1.48756	1.27279	1.45552	1.37871	AVRG		1.43043		10.66547
32 Benzo(j)fluoranthene	1.87561	1.63974	1.69312	1.34601	1.43025	1.29025	AVRG		1.54583		14.69110
34 Benzo(e)pyrene	1.41322	1.15563	1.20266	1.17341	1.25451	1.19724	AVRG		1.23278		7.66778
35 Benzo(a)pyrene	1.32229	0.98463	1.10400	1.08650	1.17985	1.14459	AVRG		1.13698		9.87912
37 Perylene	1.52262	1.25785	1.28425	1.19787	1.28341	1.22621	AVRG		1.29537		8.97678
39 Dibenzo(a,h)anthracene	4871	15562	35961	160223	299103	707781	QUAD	0.000e+000	1.08730	-0.02060	0.99951
40 Indeno(1,2,3-cd)pyrene	1.24301	0.88575	0.99779	1.10124	1.18814	1.20877	AVRG		1.10412		12.56950
41 Benzo(g,h,i)perylene	1.32082	0.95834	1.07523	1.04934	1.12164	1.09842	AVRG		1.10396		10.89886
$ 4 2-Methylnaphthalene-d10	0.90292	0.78649	0.79196	0.79138	0.78992	0.76243	AVRG		0.80418		6.17291
$ 15 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 24 Fluoranthene-d10	1.15599	1.05095	1.07921	1.02859	1.01017	0.96647	AVRG		1.04856		6.19505
$ 33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
End Cal Date : 27-AUG-2020 15:08
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Last Edit : 28-Aug-2020 06:57 van

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 38 Dibenzo(a,h)anthracene-d14	3390	12845	27361	136475	248647	592614	QUAD	0.000e+000	1.30503	-0.03082	0.99933

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 27-AUG-2020 12:35
End Cal Date : 27-AUG-2020 15:08
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Last Edit : 28-Aug-2020 06:57 van

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05
FILENAME:	NT1120082702	NT1120082704	NT1120082705	NT1120082706	NT1120082707
INJ.DATE:	27-AUG-2020	27-AUG-2020	27-AUG-2020	27-AUG-2020	27-AUG-2020
INJ.TIME:	12:35	13:38	14:08	14:38	15:08

	Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	1 Naphthalene-d8	6.813	6.804	6.804	6.804	6.804	6.804	6.604-7.004	6.806	0.004
	2 Naphthalene	6.840	6.840	6.840	6.840	6.840	6.840	6.640-7.040	6.840	0.000
	3 Benzo(b)thiophene	7.094	7.093	7.093	7.093	7.093	7.093	6.893-7.293	7.093	0.000
$	4 2-Methylnaphthalene-d1	7.781	7.781	7.781	7.781	7.781	7.781	7.581-7.981	7.781	0.000
	5 2-Methylnaphthalene	7.833	7.833	7.833	7.833	7.833	7.833	7.633-8.033	7.833	0.000
	6 1-Methylnaphthalene	8.086	8.085	8.085	8.085	8.085	8.085	7.885-8.285	8.085	0.000
	7 2-Chloronaphthalene	8.737	8.737	8.737	8.737	8.737	8.737	8.537-8.937	8.737	0.000
	8 Biphenyl	8.705	8.705	8.705	8.705	8.705	8.705	8.505-8.905	8.705	0.000
	9 2,6-Dimethylnaphthalen	8.758	8.758	8.758	8.758	8.758	8.758	8.558-8.958	8.758	0.000
	10 Acenaphthylene	9.654	9.654	9.654	9.654	9.654	9.654	9.454-9.854	9.654	0.000
*	11 Acenaphthene-d10	9.807	9.807	9.807	9.807	9.807	9.807	9.607-10.007	9.807	0.000
	12 Acenaphthene	9.871	9.871	9.871	9.871	9.871	9.871	9.671-10.071	9.871	0.000
	13 Dibenzofuran	10.075	10.075	10.075	10.075	10.075	10.075	9.875-10.275	10.075	0.000
	14 2,3,5-Trimethylnaphtha	10.176	10.176	10.176	10.176	10.163	10.176	9.976-10.376	10.173	0.006
$	15 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	16.449	16.249-16.649	+++++	+++++
	16 Fluorene	10.694	10.694	10.694	10.694	10.694	10.694	10.494-10.894	10.694	0.000
	17 Dibenzothiophene	12.314	12.304	12.304	12.304	12.303	12.304	12.104-12.504	12.306	0.005

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

	Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	18 Phenanthrene-d10	12.482	12.482	12.482	12.482	12.482	12.482	12.282-12.682	12.482	0.000
	19 Phenanthrene	12.524	12.524	12.514	12.514	12.524	12.524	12.324-12.724	12.520	0.006
$	20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	14.341	14.141-14.541	+++++	+++++
	21 Anthracene	12.577	12.577	12.577	12.577	12.577	12.577	12.377-12.777	12.577	0.000
	22 Carbazole	13.253	13.253	13.253	13.253	13.253	13.253	13.053-13.453	13.253	0.000
	23 1-Methylphenanthrene	13.515	13.515	13.515	13.515	13.515	13.515	13.315-13.715	13.515	0.000
$	24 Fluoranthene-d10	14.579	14.579	14.579	14.579	14.579	14.579	14.379-14.779	14.579	0.000
	25 Fluoranthene	14.608	14.608	14.608	14.608	14.608	14.608	14.408-14.808	14.608	0.000
	26 Pyrene	15.107	15.107	15.107	15.107	15.107	15.107	14.907-15.307	15.107	0.000
	27 Benzo(a)anthracene	17.123	17.123	17.123	17.123	17.123	17.123	16.923-17.323	17.123	0.000
*	28 Chrysene-d12	17.214	17.214	17.214	17.214	17.214	17.214	17.014-17.414	17.214	0.000
	29 Chrysene	17.264	17.264	17.264	17.264	17.264	17.264	17.064-17.464	17.264	0.000
	30 Benzo(b)fluoranthene	18.963	18.963	18.963	18.963	18.963	18.963	18.763-19.163	18.963	0.000
	31 Benzo(k)fluoranthene	19.001	19.001	19.001	19.001	19.001	19.001	18.801-19.201	19.001	0.000
	32 Benzo(j)fluoranthene	19.059	19.059	19.059	19.059	19.059	19.059	18.859-19.259	19.059	0.000
$	33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	22.353	22.153-22.553	+++++	+++++
	34 Benzo(e)pyrene	19.674	19.674	19.674	19.674	19.674	19.674	19.474-19.874	19.674	0.000
	35 Benzo(a)pyrene	19.779	19.779	19.779	19.779	19.779	19.779	19.579-19.979	19.779	0.000
*	36 Perylene-d12	19.981	19.981	19.981	19.981	19.981	19.981	19.781-20.181	19.981	0.000
	37 Perylene	20.049	20.048	20.048	20.048	20.048	20.048	19.848-20.248	20.048	0.000
$	38 Dibenzo(a,h)anthracene	22.419	22.418	22.418	22.418	22.418	22.418	22.218-22.618	22.418	0.000
	39 Dibenzo(a,h)anthracene	22.529	22.540	22.540	22.529	22.540	22.540	22.340-22.740	22.536	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 Indeno(1,2,3-cd)pyrene	22.562	22.562	22.562	22.562	22.562	22.562	22.362-22.762	22.562	0.000
41 Benzo(g,h,i)perylene	23.725	23.725	23.725	23.725	23.725	23.725	23.525-23.925	23.725	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

ID: RT01
FILENAME: NT1120082703
INJ.DATE: 27-AUG-2020
INJ.TIME: 13:07

	Compound	RT01	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	1 Naphthalene-d8	6.813	6.804	6.604-7.004	6.813	0.000
	2 Naphthalene	6.840	6.840	6.640-7.040	6.840	0.000
	3 Benzo(b)thiophene	7.094	7.093	6.893-7.293	7.094	0.000
$	4 2-Methylnaphthalene-d1	7.781	7.781	7.581-7.981	7.781	0.000
	5 2-Methylnaphthalene	7.833	7.833	7.633-8.033	7.833	0.000
	6 1-Methylnaphthalene	8.086	8.085	7.885-8.285	8.086	0.000
	7 2-Chloronaphthalene	8.737	8.737	8.537-8.937	8.737	0.000
	8 Biphenyl	8.705	8.705	8.505-8.905	8.705	0.000
	9 2,6-Dimethylnaphthalen	8.758	8.758	8.558-8.958	8.758	0.000
	10 Acenaphthylene	9.654	9.654	9.454-9.854	9.654	0.000
*	11 Acenaphthene-d10	9.807	9.807	9.607-10.007	9.807	0.000
	12 Acenaphthene	9.871	9.871	9.671-10.071	9.871	0.000
	13 Dibenzofuran	10.075	10.075	9.875-10.275	10.075	0.000
	14 2,3,5-Trimethylnaphtha	10.176	10.176	9.976-10.376	10.176	0.000
$	15 Fluorene-d10	+++++	16.449	16.249-16.649	+++++	+++++
	16 Fluorene	10.694	10.694	10.494-10.894	10.694	0.000
	17 Dibenzothiophene	12.314	12.304	12.104-12.504	12.314	0.000
*	18 Phenanthrene-d10	12.482	12.482	12.282-12.682	12.482	0.000
	19 Phenanthrene	12.524	12.524	12.324-12.724	12.524	0.000
$	20 Anthracene-d10	+++++	14.341	14.141-14.541	+++++	+++++

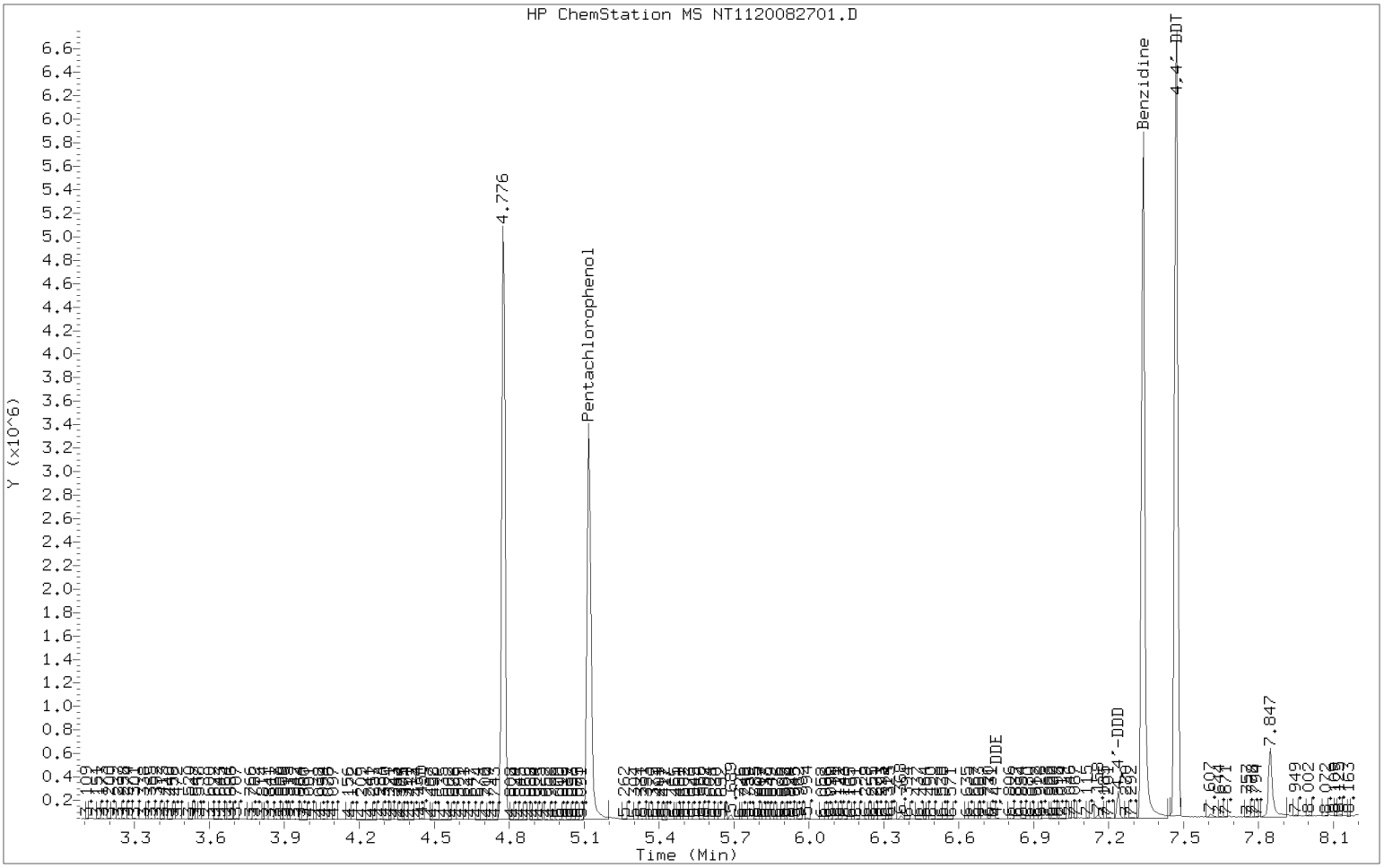
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

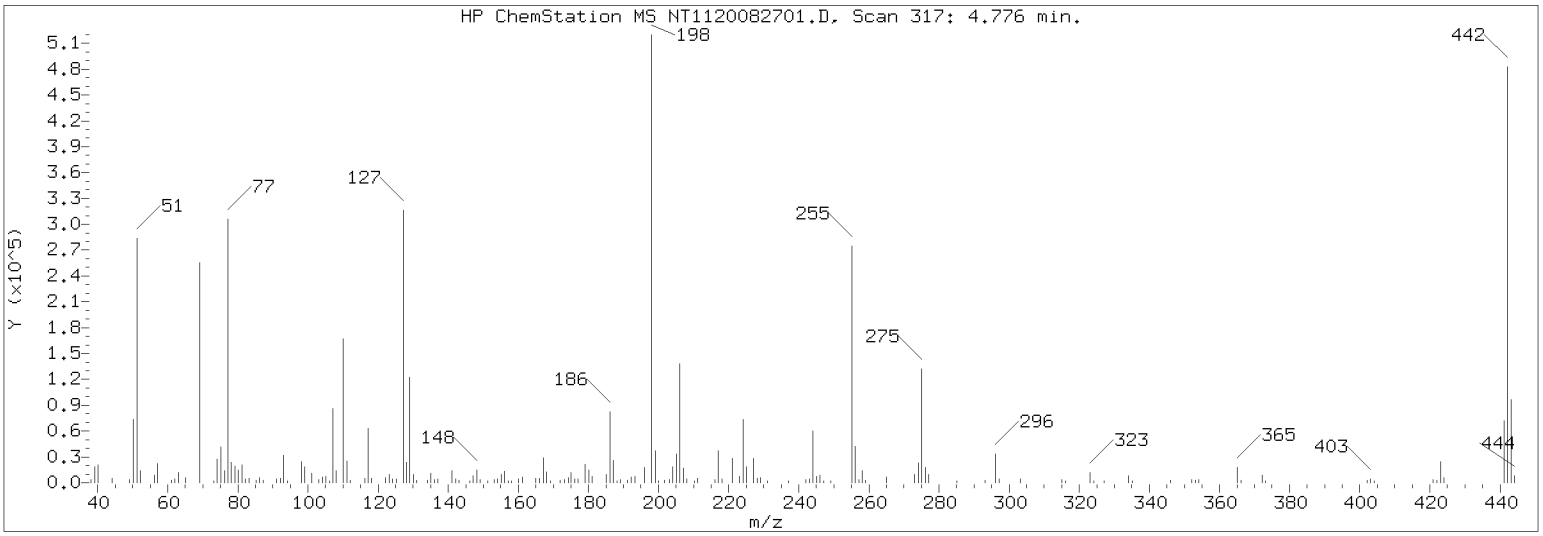
Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20200827.b
Inst ID: nt11.i

	Compound	RT01	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	21 Anthracene	12.577	12.577	12.377-12.777	12.577	0.000
	22 Carbazole	13.253	13.253	13.053-13.453	13.253	0.000
	23 1-Methylphenanthrene	13.524	13.515	13.315-13.715	13.524	0.000
$	24 Fluoranthene-d10	14.579	14.579	14.379-14.779	14.579	0.000
	25 Fluoranthene	14.608	14.608	14.408-14.808	14.608	0.000
	26 Pyrene	15.107	15.107	14.907-15.307	15.107	0.000
	27 Benzo(a)anthracene	17.123	17.123	16.923-17.323	17.123	0.000
*	28 Chrysene-d12	17.214	17.214	17.014-17.414	17.214	0.000
	29 Chrysene	17.264	17.264	17.064-17.464	17.264	0.000
	30 Benzo(b)fluoranthene	18.963	18.963	18.763-19.163	18.963	0.000
	31 Benzo(k)fluoranthene	19.001	19.001	18.801-19.201	19.001	0.000
	32 Benzo(j)fluoranthene	19.059	19.059	18.859-19.259	19.059	0.000
$	33 Benzo(e)pyrene-d12	+++++	22.353	22.153-22.553	+++++	+++++
	34 Benzo(e)pyrene	19.674	19.674	19.474-19.874	19.674	0.000
	35 Benzo(a)pyrene	19.779	19.779	19.579-19.979	19.779	0.000
*	36 Perylene-d12	19.981	19.981	19.781-20.181	19.981	0.000
	37 Perylene	20.049	20.048	19.848-20.248	20.049	0.000
$	38 Dibenzo(a,h)anthracene	22.418	22.418	22.218-22.618	22.418	0.000
	39 Dibenzo(a,h)anthracene	22.540	22.540	22.340-22.740	22.540	0.000
	40 Indeno(1,2,3-cd)pyrene	22.562	22.562	22.362-22.762	22.562	0.000
	41 Benzo(g,h,i)perylene	23.725	23.725	23.525-23.925	23.725	0.000

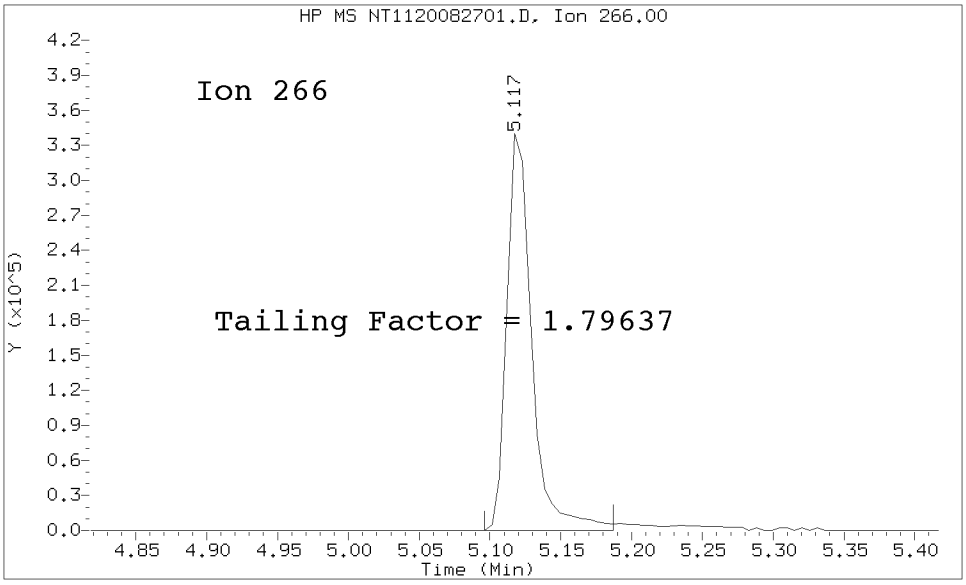
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: VTS
Sample Info: SIH0304-TUN1 SIH0304-TUN1
Report Date: 08/28/2020 09:13



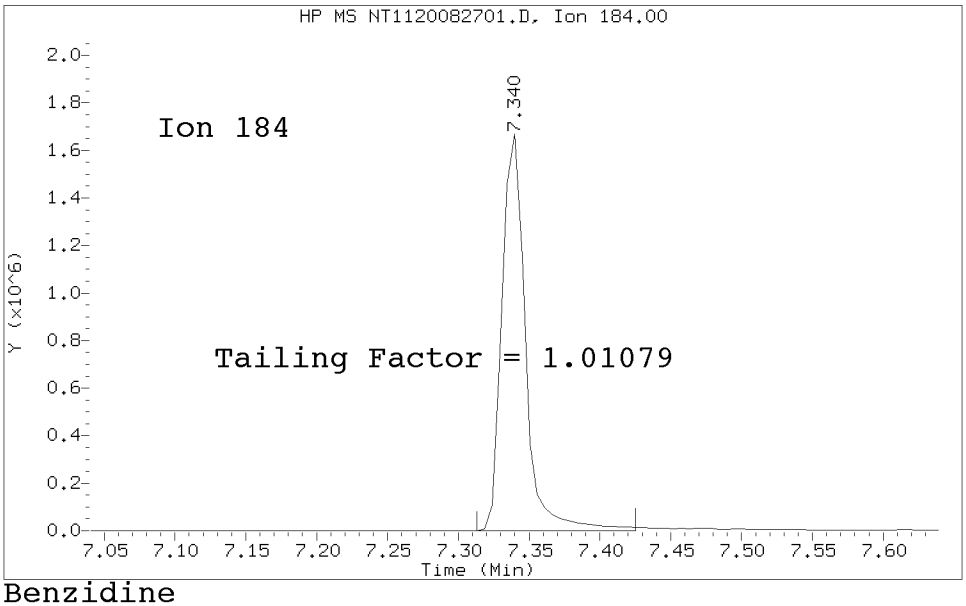


Datafile Analyzed: /20200827.b/NT1120082701.D/NT1120082701.D
Method Used: \20200827.b\DFTPP8270E.m\sw846ddt.m Inst: nt11
Injection Date: 27-AUG-2020 12:20 Operator: JZ
Sample Info: SIH0304-TUN1
Report Date: 08/28/2020 09:13



Pentachlorophenol
==========
Exp. RT = 5.123
Found RT = 5.117

Tail Factor = 1.796 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.345
Found RT = 7.340

Tail Factor = 1.011 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.7963738	2.000	PASS
Benzidine	1.0107875	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	998892			N/A
4,4-DDE	1889	0.2	20.0	PASS
4,4-DDD	41313	4.0	20.0	PASS
4,4-DDD + DDE	43202	4.1	20.0	PASS

Tuning Sample, nt11.i/20200827.b/NT1120082701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.14
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.19
365	1.00 - 100.00% of mass 198	3.42
441	Less than 150.00% of mass 443	14.99 (75.09)
442	Less than 200.00% of mass 198	98.16
443	15.00 - 24.00% of mass 442	19.96 (20.34)

Data File: NT1120082701.D
Spectrum: Avg. Scans 316-318 (4.78), Background Scan 312
Location of Maximum: 198.00
Number of points: 174

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1941	117.00	50320	181.00	6022	256.00	34600
39.00	15485	118.00	4195	185.00	8139	257.00	2333
49.00	2696	122.00	4235	186.00	66480	258.00	12282
50.00	58784	123.00	7120	187.00	19448	259.00	1560
51.00	232000	124.00	3163	188.00	863	265.00	5119
52.00	11752	125.00	3394	189.00	3482	273.00	7663
56.00	7248	127.00	261888	191.00	1743	274.00	19792
57.00	17960	128.00	19768	192.00	5434	275.00	108560
61.00	2132	129.00	98776	193.00	5882	276.00	14774
62.00	3434	130.00	8462	196.00	14144	277.00	8657
63.00	9639	131.00	1030	198.00	427584	285.00	827
65.00	4977	134.00	2918	199.00	30744	293.00	1754
69.00	205824	135.00	8793	200.00	1923	296.00	28640
73.00	741	136.00	2894	201.00	1926	297.00	3772
74.00	21400	137.00	4091	203.00	3001	303.00	3540
75.00	33352	141.00	11851	204.00	15126	315.00	2477
76.00	11950	142.00	4210	205.00	25776	316.00	1506
77.00	251584	143.00	2814	206.00	113792	323.00	10571
78.00	17936	146.00	1656	207.00	14203	324.00	1453
79.00	14518	147.00	6952	208.00	3651	327.00	1524
80.00	11761	148.00	12680	210.00	739	334.00	6431
81.00	17192	149.00	2872	211.00	4346	335.00	1429
82.00	3943	151.00	833	216.00	2822	346.00	2166
83.00	4206	153.00	3641	217.00	28896	352.00	3275
85.00	2620	154.00	3375	218.00	3980	353.00	1910
86.00	4622	155.00	7357	221.00	23072	354.00	2621
87.00	1664	156.00	10070	222.00	1872	365.00	14621
91.00	3958	157.00	1498	223.00	6518	366.00	2204
92.00	4127	158.00	1417	224.00	61440	372.00	6406
93.00	24808	160.00	3642	225.00	14926	373.00	1390
94.00	1588	161.00	5920	227.00	23088	383.00	671
98.00	18864	165.00	4518	228.00	3791	402.00	2025
99.00	16217	166.00	3866	229.00	4874	403.00	3639
101.00	9486	167.00	23472	231.00	1648	404.00	703
103.00	2079	168.00	11061	235.00	745	421.00	3401
104.00	5375	169.00	1468	237.00	1492	422.00	2551
105.00	5151	172.00	887	242.00	2576	423.00	23288
106.00	1478	173.00	2891	243.00	3821	424.00	4186
107.00	70976	174.00	5335	244.00	48984	441.00	64096
108.00	10848	175.00	9807	245.00	6111	442.00	419712
110.00	135360	176.00	3189	246.00	7978	443.00	85360
111.00	20792	177.00	3727	247.00	704	444.00	7482
112.00	919	179.00	17984	249.00	1459		
116.00	4001	180.00	11984	255.00	224128		

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D

Date : 27-AUG-2020 12:35

Client ID:

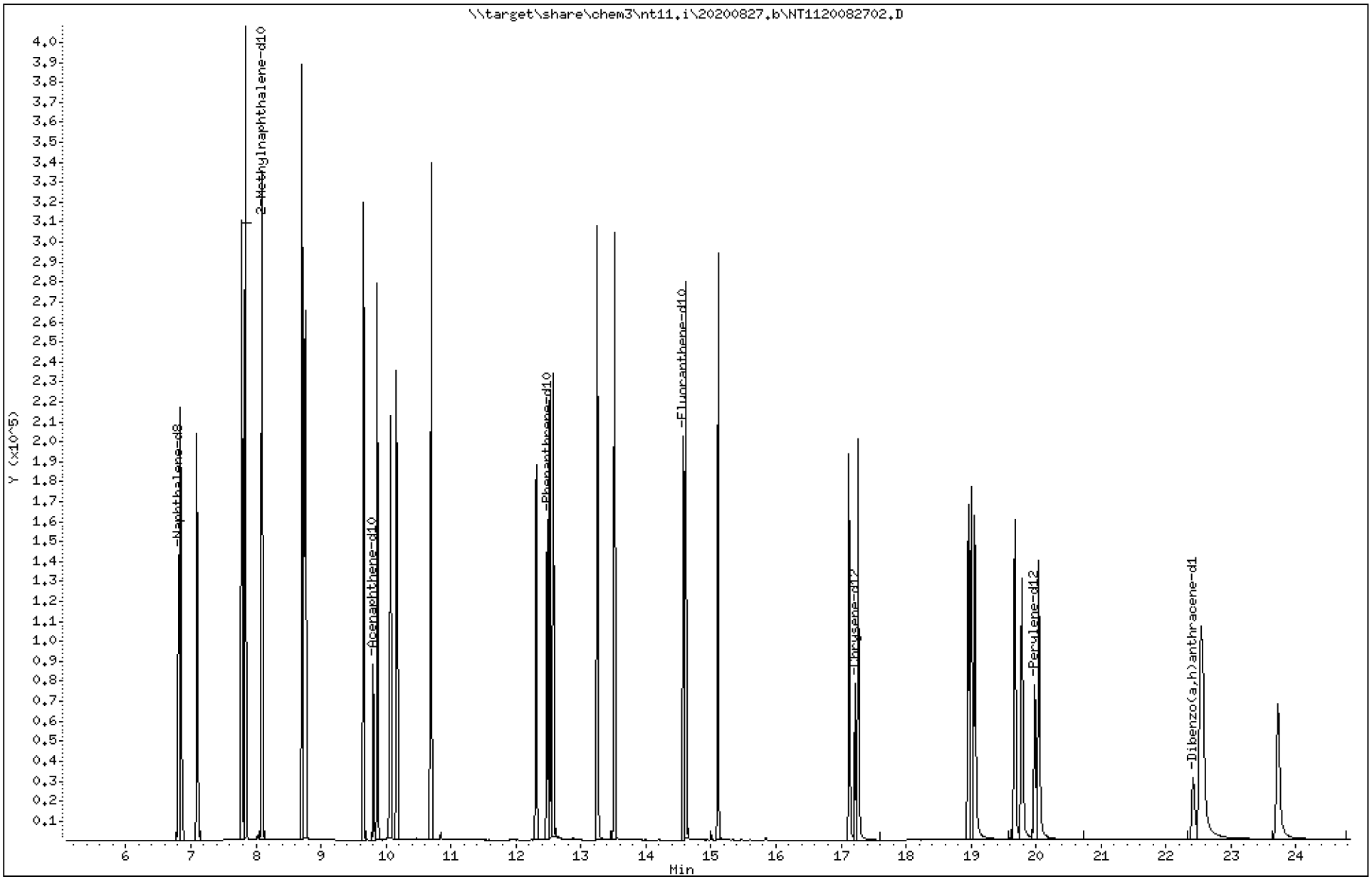
Sample Info: SIH0304-CAL4

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082702.D
Lab Smp Id: SIH0304-CAL4
Inj Date : 27-AUG-2020 12:35 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL4
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	6.813	6.804	(1.000)	215332	200.000	
	2 Naphthalene	128	6.840	6.840	(1.004)	298371	250.000	239
	3 Benzo(b)thiophene	134	7.093	7.093	(1.041)	244845	250.000	248
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.142)	213012	250.000	246
	5 2-Methylnaphthalene	142	7.833	7.833	(1.150)	244643	250.000	243
	6 1-Methylnaphthalene	142	8.085	8.085	(1.187)	226269	250.000	242
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	208133	250.000	234
	8 Biphenyl	154	8.705	8.705	(0.888)	285674	250.000	241
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	216052	250.000	246
	10 Acenaphthylene	152	9.653	9.653	(0.984)	282072	250.000	241
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	102217	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	183649	250.000	237
	13 Dibenzofuran	168	10.074	10.074	(1.027)	246528	250.000	238
	14 2,3,5-Trimethylnaphthalene	170	10.175	10.175	(1.038)	160106	250.000	251
	16 Fluorene	166	10.694	10.694	(1.090)	192257	250.000	241
	17 Dibenzothiophene	184	12.314	12.303	(0.987)	229922	250.000	244
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	170387	200.000	
	19 Phenanthrene	178	12.524	12.524	(1.003)	263698	250.000	237
	21 Anthracene	178	12.576	12.576	(1.008)	258692	250.000	232
	22 Carbazole	167	13.253	13.252	(1.062)	296860	250.000	250
	23 1-Methylphenanthrene	192	13.515	13.514	(1.083)	239584	250.000	243
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	219073	250.000	245
	25 Fluoranthene	202	14.607	14.607	(1.170)	262853	250.000	237
	26 Pyrene	202	15.107	15.107	(1.210)	268303	250.000	235
	27 Benzo(a)anthracene	228	17.123	17.122	(0.995)	209464	250.000	246
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	116138	200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	220580	250.000	230
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	194221	250.000	257
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	221208	250.000	222
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	233934	250.000	218
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	203936	250.000	238
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	188831	250.000	239
*	36 Perylene-d12	264	19.981	19.981	(1.000)	139038	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	208187	250.000	231
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	136475	250.000	250
	39 Dibenzo(a,h)anthracene	278	22.529	22.540	(1.128)	160223	250.000	245
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	191393	250.000	249
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	182373	250.000	238

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082702.D
Lab Smp Id: SIH0304-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	215332	0.00
11 Acenaphthene-d10	102217	51109	204434	102217	0.00
18 Phenanthrene-d10	170387	85194	340774	170387	0.00
28 Chrysene-d12	116138	58069	232276	116138	0.00
36 Perylene-d12	139038	69519	278076	139038	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.81	0.00
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082702.D

Lab ID: SIH0304-CAL4
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 12:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

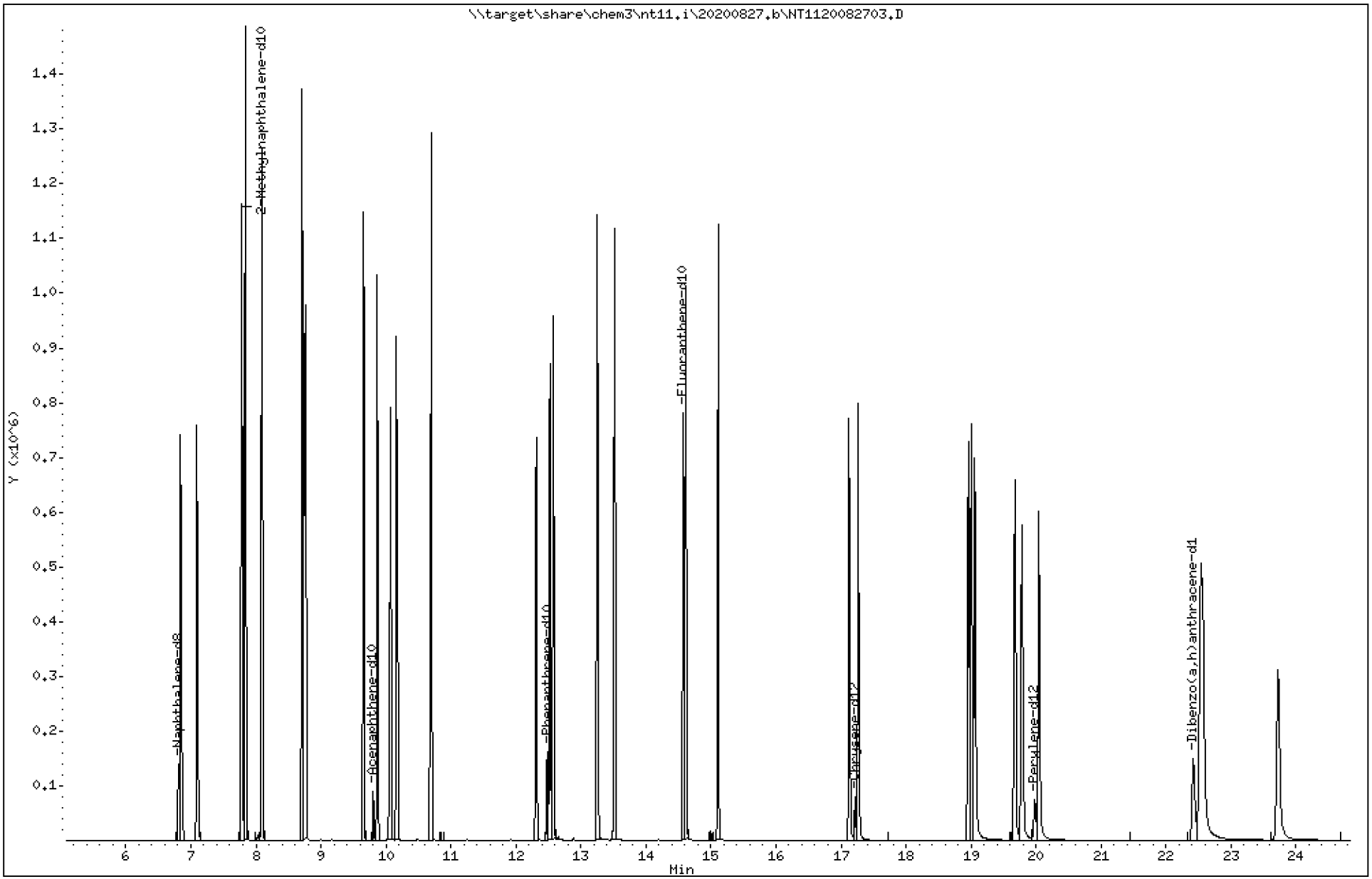
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D
Date : 27-AUG-2020 13:07
Client ID:
Sample Info: SIH0304-CAL6

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082703.D
Lab Smp Id: SIH0304-CAL6
Inj Date : 27-AUG-2020 13:07 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL6
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	6.813	6.804	(1.000)	211963	200.000	
	2 Naphthalene	128	6.840	6.840	(1.004)	1085040	1000.00	882
	3 Benzo(b)thiophene	134	7.093	7.093	(1.041)	905823	1000.00	933
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.142)	808033	1000.00	948
	5 2-Methylnaphthalene	142	7.833	7.833	(1.150)	921973	1000.00	929
	6 1-Methylnaphthalene	142	8.085	8.085	(1.187)	856598	1000.00	929
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	796291	1000.00	874
	8 Biphenyl	154	8.705	8.705	(0.888)	1041154	1000.00	858
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	822760	1000.00	914
	10 Acenaphthylene	152	9.653	9.653	(0.984)	1046489	1000.00	872
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	104596	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	706999	1000.00	891
	13 Dibenzofuran	168	10.074	10.074	(1.027)	910528	1000.00	859
	14 2,3,5-Trimethylnaphthalene	170	10.175	10.175	(1.038)	618611	1000.00	949
	16 Fluorene	166	10.694	10.694	(1.090)	732038	1000.00	897
	17 Dibenzothiophene	184	12.314	12.303	(0.987)	865885	1000.00	900
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	173851	200.000	
	19 Phenanthrene	178	12.524	12.524	(1.003)	979449	1000.00	861
	21 Anthracene	178	12.576	12.576	(1.008)	993726	1000.00	875
	22 Carbazole	167	13.252	13.252	(1.062)	1098417	1000.00	907
	23 1-Methylphenanthrene	192	13.524	13.514	(1.083)	928787	1000.00	925
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	840106	1000.00	922
	25 Fluoranthene	202	14.607	14.607	(1.170)	1008651	1000.00	890
	26 Pyrene	202	15.107	15.107	(1.210)	1016974	1000.00	874
	27 Benzo(a)anthracene	228	17.123	17.122	(0.995)	831121	1000.00	957
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	118274	200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	871953	1000.00	891
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	795610	1000.00	1050
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	960792	1000.00	964
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	899146	1000.00	835
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	834330	1000.00	971
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	797637	1000.00	1010(H)
*	36 Perylene-d12	264	19.981	19.981	(1.000)	139375	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	854516	1000.00	947
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	592614	1000.00	998
	39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	707781	1000.00	998
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	842364	1000.00	1090
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	765460	1000.00	995

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082703.D
Lab Smp Id: SIH0304-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\LOWSIM.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	211963	-1.56
11 Acenaphthene-d10	102217	51109	204434	104596	2.33
18 Phenanthrene-d10	170387	85194	340774	173851	2.03
28 Chrysene-d12	116138	58069	232276	118274	1.84
36 Perylene-d12	139038	69519	278076	139375	0.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.81	-0.00
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082703.D

Lab ID: SIH0304-CAL6
nt11.i, 20200827.b\LOWSIM.m,   27-AUG-2020 13:07

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\LOWSIM.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D

Date : 27-AUG-2020 13:38

Client ID:

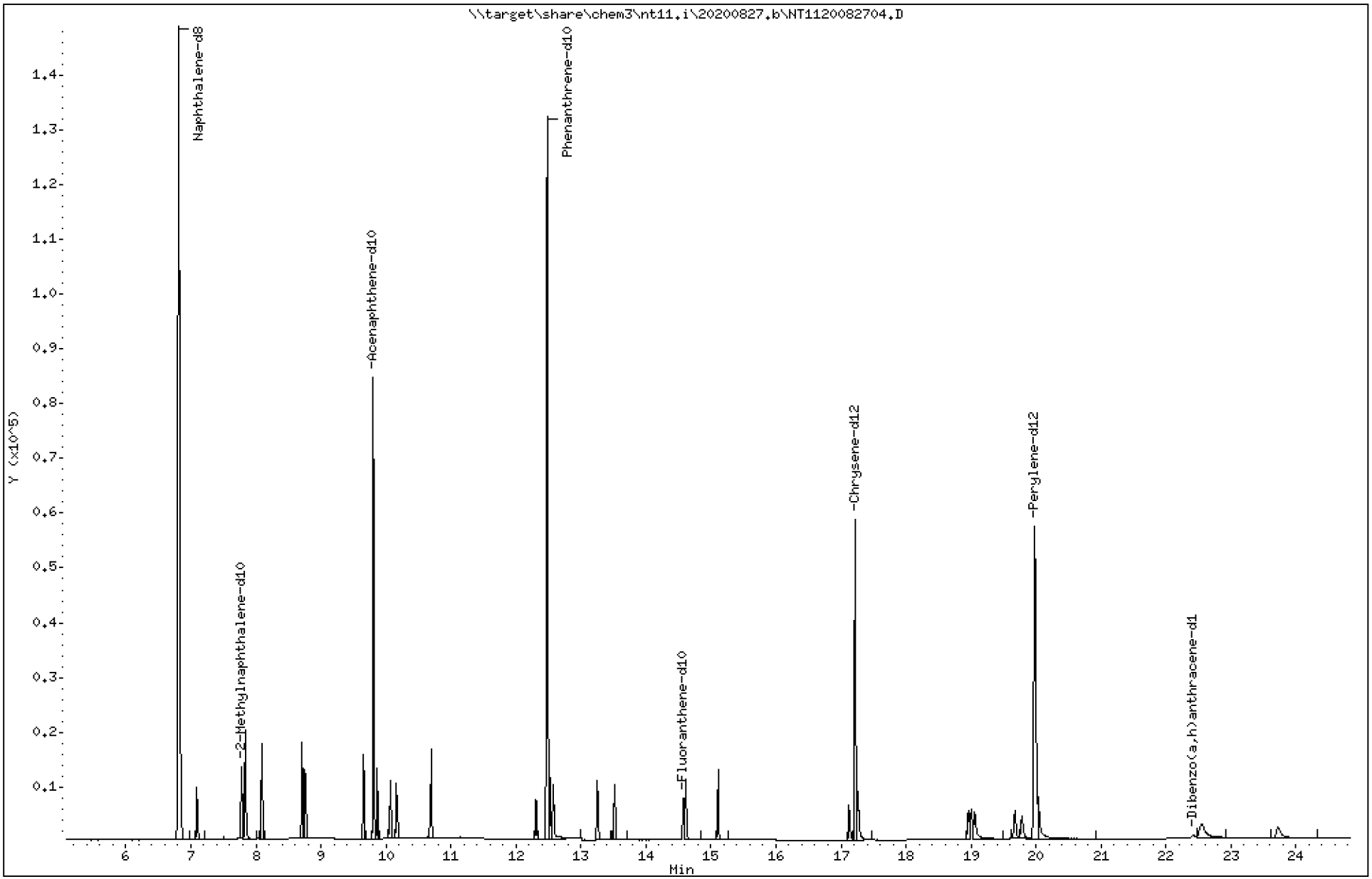
Sample Info: SIH0304-CAL1

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082704.D
Lab Smp Id: SIH0304-CAL1
Inj Date : 27-AUG-2020 13:38 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	6.804	6.804	(1.000)	218979	200.000	
	2 Naphthalene	128	6.840	6.840	(1.005)	15725	10.0000	12.4
	3 Benzo(b)thiophene	134	7.093	7.093	(1.043)	11166	10.0000	11.1
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.144)	9886	10.0000	11.2
	5 2-Methylnaphthalene	142	7.833	7.833	(1.151)	12246	10.0000	11.9
	6 1-Methylnaphthalene	142	8.085	8.085	(1.188)	11412	10.0000	12.0
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	10449	10.0000	12.5
	8 Biphenyl	154	8.705	8.705	(0.888)	13067	10.0000	11.7
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	9296	10.0000	11.2
	10 Acenaphthylene	152	9.653	9.653	(0.984)	13670	10.0000	12.4
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	96342	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	8975	10.0000	12.3
	13 Dibenzofuran	168	10.074	10.074	(1.027)	12035	10.0000	12.3
	14 2,3,5-Trimethylnaphthalene	170	10.175	10.175	(1.038)	6602	10.0000	11.0
	16 Fluorene	166	10.694	10.694	(1.090)	9159	10.0000	12.2
	17 Dibenzothiophene	184	12.303	12.303	(0.986)	9543	10.0000	11.3
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	152977	200.000	
	19 Phenanthrene	178	12.524	12.524	(1.003)	12189	10.0000	12.2
	21 Anthracene	178	12.576	12.576	(1.008)	12012	10.0000	12.0
	22 Carbazole	167	13.252	13.252	(1.062)	12712	10.0000	11.9
	23 1-Methylphenanthrene	192	13.514	13.514	(1.083)	9626	10.0000	10.9
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	8842	10.0000	11.0
	25 Fluoranthene	202	14.607	14.607	(1.170)	11743	10.0000	11.8
	26 Pyrene	202	15.107	15.107	(1.210)	12578	10.0000	12.3
	27 Benzo(a)anthracene	228	17.122	17.122	(0.995)	8314	10.0000	11.9
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	94808	200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	9750	10.0000	12.4
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	7008	10.0000	11.9
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	9145	10.0000	11.8
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	10149	10.0000	12.1
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	7647	10.0000	11.5
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	7155	10.0000	11.6
*	36 Perylene-d12	264	19.981	19.981	(1.000)	108221	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	8239	10.0000	11.8
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	3390	10.0000	8.17(M)
	39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	4871	10.0000	9.78
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	6726	10.0000	11.3
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	7147	10.0000	12.0

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082704.D
Lab Smp Id: SIH0304-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	218979	1.69
11 Acenaphthene-d10	102217	51109	204434	96342	-5.75
18 Phenanthrene-d10	170387	85194	340774	152977	-10.22
28 Chrysene-d12	116138	58069	232276	94808	-18.37
36 Perylene-d12	139038	69519	278076	108221	-22.16

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082704.D

Lab ID: SIH0304-CAL1
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 13:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

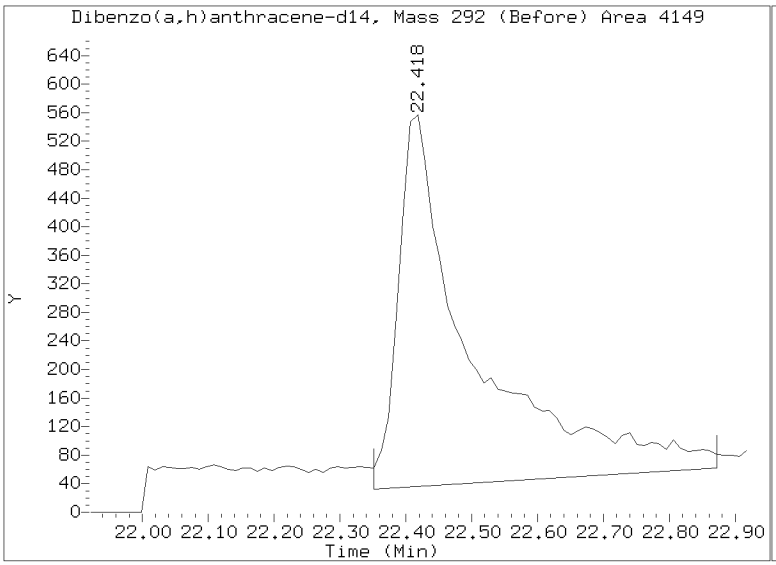
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

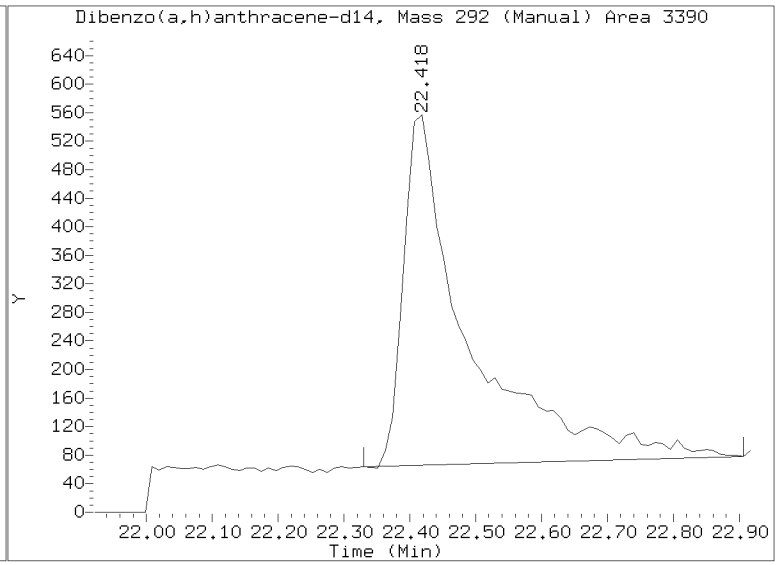
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

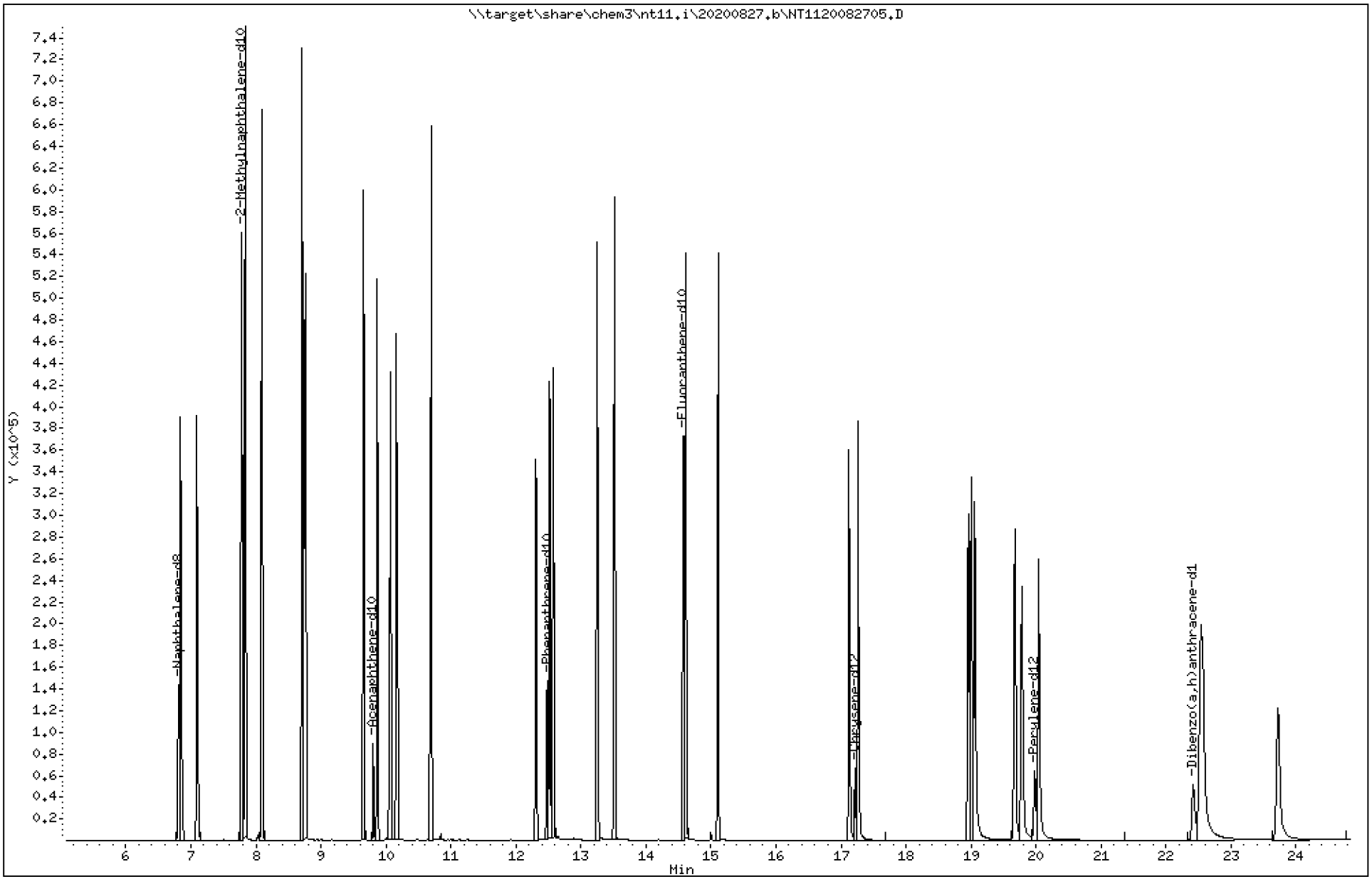
Datafile: //target/share/chem3/nt11.i/20200827.b/NT1120082704.D
Injection Date: 27-AUG-2020 13:38
Lab ID:SIH0304-CAL1 Client ID:
Report Date: 08/28/2020 09:10





Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D
Date : 27-AUG-2020 14:08
Client ID:
Sample Info: SIH0304-CAL5

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082705.D
Lab Smp Id: SIH0304-CAL5
Inj Date : 27-AUG-2020 14:08 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL5
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 5 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

								AMOUNTS	
		QUANT SIG						CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ng/mL)	(ng/mL)
*	1 Naphthalene-d8	136	6.804	6.804	(1.000)	205773		200.000	
	2 Naphthalene	128	6.840	6.840	(1.005)	556487		500.000	466
	3 Benzo(b)thiophene	134	7.093	7.093	(1.043)	459474		500.000	487
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.144)	406362		500.000	491
	5 2-Methylnaphthalene	142	7.833	7.833	(1.151)	461169		500.000	479
	6 1-Methylnaphthalene	142	8.085	8.085	(1.188)	429494		500.000	480
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	398892		500.000	467
	8 Biphenyl	154	8.705	8.705	(0.888)	540352		500.000	475
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	413173		500.000	489
	10 Acenaphthylene	152	9.653	9.653	(0.984)	526443		500.000	468
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	98118		200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	350617		500.000	471
	13 Dibenzofuran	168	10.074	10.074	(1.027)	463388		500.000	466
	14 2,3,5-Trimethylnaphthalene	170	10.175	10.175	(1.038)	301991		500.000	494
	16 Fluorene	166	10.694	10.694	(1.090)	365393		500.000	477
	17 Dibenzothiophene	184	12.303	12.303	(0.986)	426953		500.000	480
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	160808		200.000	
	19 Phenanthrene	178	12.513	12.524	(1.003)	496311		500.000	472
	21 Anthracene	178	12.576	12.576	(1.008)	484497		500.000	461
	22 Carbazole	167	13.252	13.252	(1.062)	543316		500.000	485
	23 1-Methylphenanthrene	192	13.515	13.514	(1.083)	451966		500.000	486
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	406108		500.000	482
	25 Fluoranthene	202	14.607	14.607	(1.170)	496464		500.000	473
	26 Pyrene	202	15.107	15.107	(1.210)	500375		500.000	465
	27 Benzo(a)anthracene	228	17.123	17.122	(0.995)	383867		500.000	500
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	104617		200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	414086		500.000	479
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	352039		500.000	532
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	442699		500.000	509
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	435013		500.000	463
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	381561		500.000	509
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	358854		500.000	519
*	36 Perylene-d12	264	19.981	19.981	(1.000)	121661		200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	390353	500.000	495
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	248647	500.000	508
	39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	299103	500.000	510
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	361375	500.000	538
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	341150	500.000	508

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082705.D
Lab Smp Id: SIH0304-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	205773	-4.44
11 Acenaphthene-d10	102217	51109	204434	98118	-4.01
18 Phenanthrene-d10	170387	85194	340774	160808	-5.62
28 Chrysene-d12	116138	58069	232276	104617	-9.92
36 Perylene-d12	139038	69519	278076	121661	-12.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082705.D

Lab ID: SIH0304-CAL5
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 14:08

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

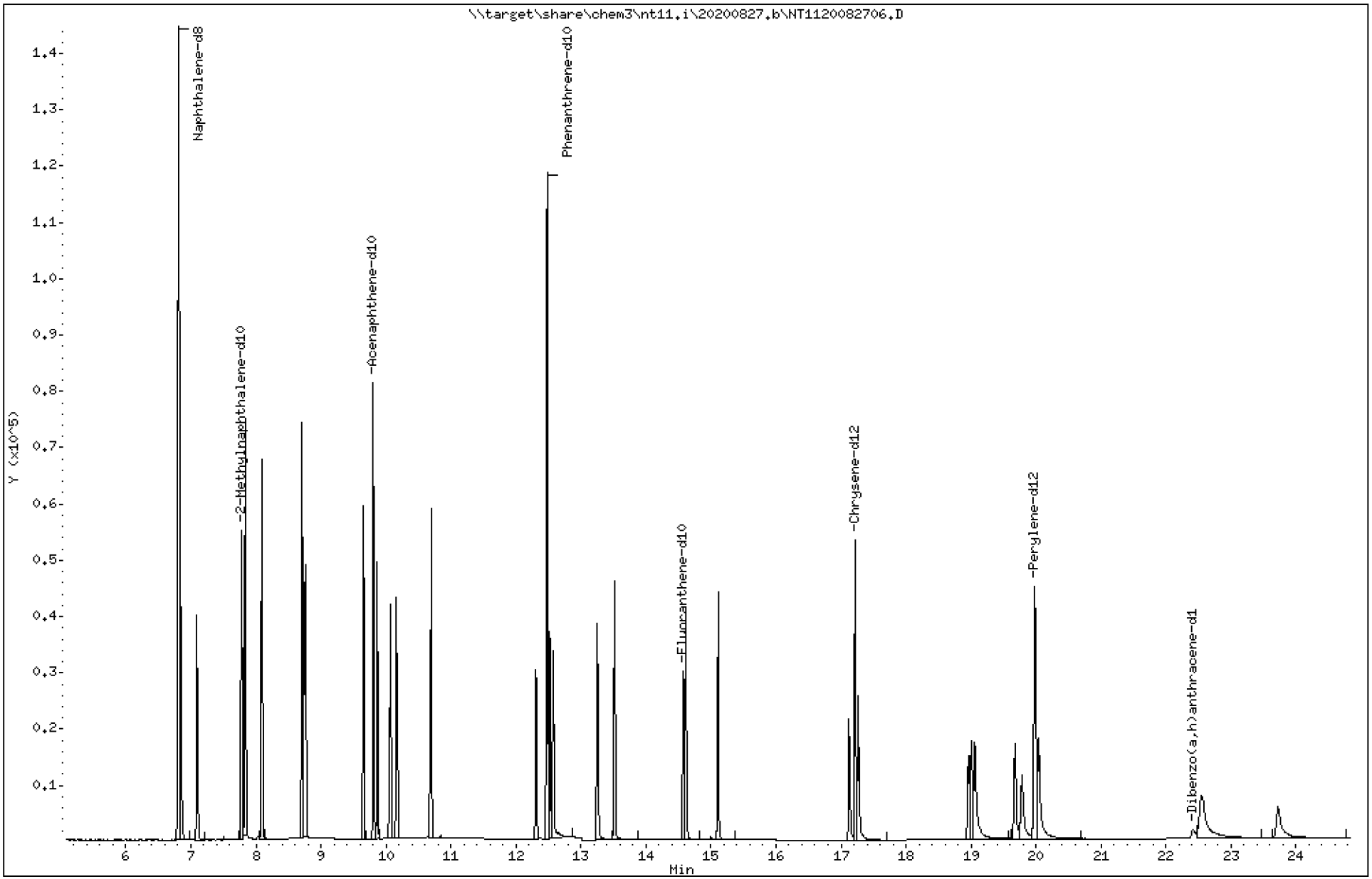
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
Date : 27-AUG-2020 14:38
Client ID:
Sample Info: SIH0304-CAL2

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082706.D
Lab Smp Id: SIH0304-CAL2
Inj Date : 27-AUG-2020 14:38 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL2
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	6.804	6.804	(1.000)	206491	200.000	
	2 Naphthalene	128	6.840	6.840	(1.005)	58881	50.0000	49.1
	3 Benzo(b)thiophene	134	7.093	7.093	(1.043)	46404	50.0000	49.1
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.144)	40601	50.0000	48.9
	5 2-Methylnaphthalene	142	7.833	7.833	(1.151)	45742	50.0000	47.3
	6 1-Methylnaphthalene	142	8.085	8.085	(1.188)	42557	50.0000	47.4
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	38604	50.0000	49.1
	8 Biphenyl	154	8.705	8.705	(0.888)	53762	50.0000	51.3
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	38600	50.0000	49.7
	10 Acenaphthylene	152	9.653	9.653	(0.984)	50210	50.0000	48.5
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	90319	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	33199	50.0000	48.4
	13 Dibenzofuran	168	10.074	10.074	(1.027)	45064	50.0000	49.3
	14 2,3,5-Trimethylnaphthalene	170	10.175	10.175	(1.038)	26854	50.0000	47.7
	16 Fluorene	166	10.694	10.694	(1.090)	33427	50.0000	47.4
	17 Dibenzothiophene	184	12.303	12.303	(0.986)	37687	50.0000	50.7
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	134229	200.000	
	19 Phenanthrene	178	12.513	12.524	(1.003)	43007	50.0000	49.0
	21 Anthracene	178	12.576	12.576	(1.008)	43953	50.0000	50.1
	22 Carbazole	167	13.252	13.252	(1.062)	43261	50.0000	46.3
	23 1-Methylphenanthrene	192	13.514	13.514	(1.083)	38981	50.0000	50.3
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	35267	50.0000	50.1
	25 Fluoranthene	202	14.607	14.607	(1.170)	42487	50.0000	48.5
	26 Pyrene	202	15.107	15.107	(1.210)	43381	50.0000	48.3
	27 Benzo(a)anthracene	228	17.123	17.122	(0.995)	27390	50.0000	44.1
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	84619	200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	33176	50.0000	47.4
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	19874	50.0000	39.0
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	30361	50.0000	45.4
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	38356	50.0000	53.0
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	27032	50.0000	46.9
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	23032	50.0000	43.3
*	36 Perylene-d12	264	19.981	19.981	(1.000)	93566	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	29423	50.0000	48.6
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	12845	50.0000	35.7
	39 Dibenzo(a,h)anthracene	278	22.529	22.540	(1.128)	15562	50.0000	36.1
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	20719	50.0000	40.1
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	22417	50.0000	43.4

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082706.D
Lab Smp Id: SIH0304-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	206491	-4.11
11 Acenaphthene-d10	102217	51109	204434	90319	-11.64
18 Phenanthrene-d10	170387	85194	340774	134229	-21.22
28 Chrysene-d12	116138	58069	232276	84619	-27.14
36 Perylene-d12	139038	69519	278076	93566	-32.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082706.D

Lab ID: SIH0304-CAL2
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 14:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

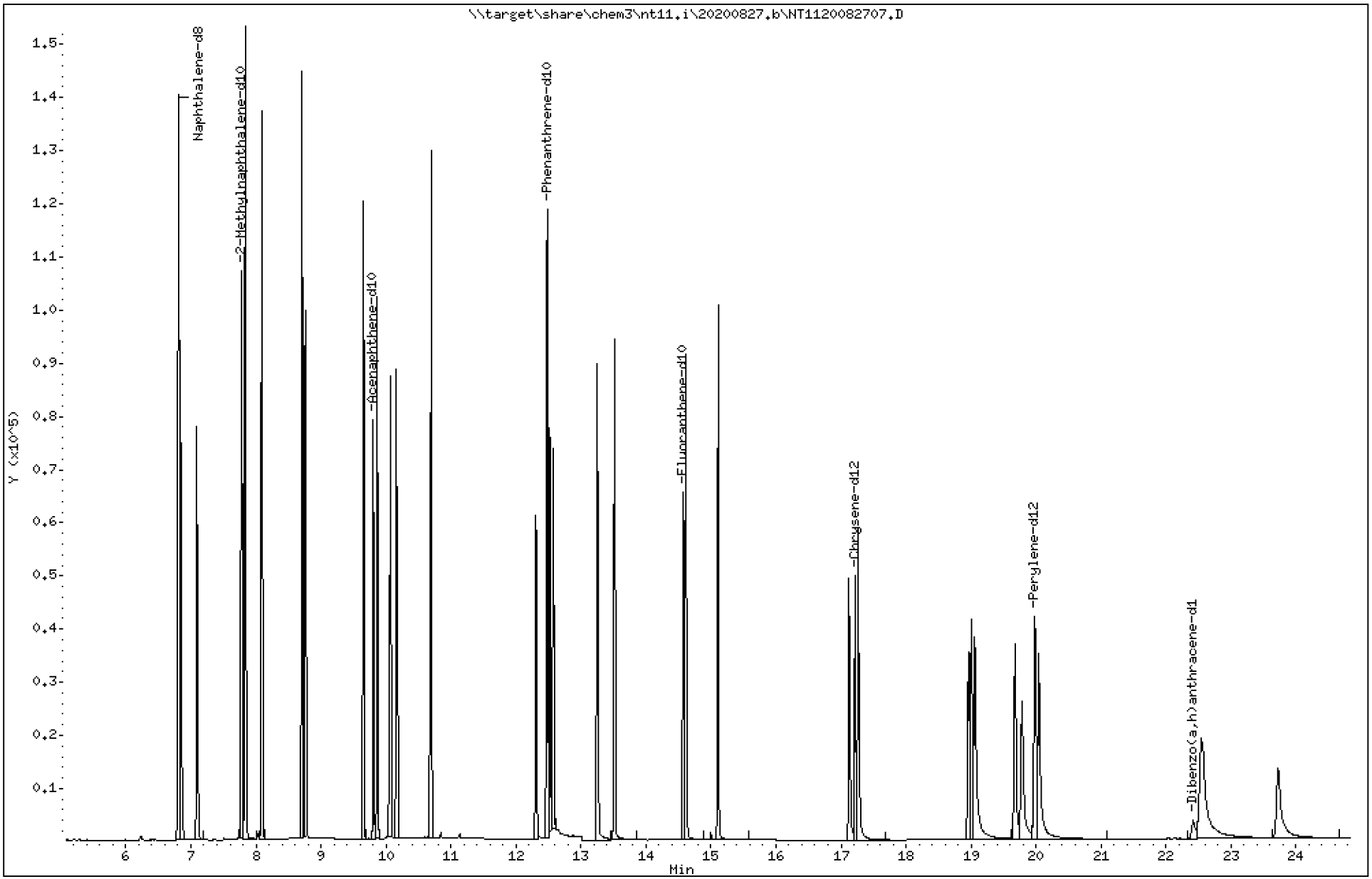
On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
Date : 27-AUG-2020 15:08
Client ID:
Sample Info: SIH0304-CAL3

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082707.D
Lab Smp Id: SIH0304-CAL3
Inj Date : 27-AUG-2020 15:08 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-CAL3
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 7 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	6.804	6.804	(1.000)	198254	200.000	
	2 Naphthalene	128	6.840	6.840	(1.005)	116634	100.000	101
	3 Benzo(b)thiophene	134	7.093	7.093	(1.043)	91247	100.000	100
$	4 2-Methylnaphthalene-d10	152	7.780	7.780	(1.144)	78505	100.000	98.5
	5 2-Methylnaphthalene	142	7.833	7.833	(1.151)	92881	100.000	100
	6 1-Methylnaphthalene	142	8.085	8.085	(1.188)	86322	100.000	100
	7 2-Chloronaphthalene	162	8.736	8.736	(0.891)	79561	100.000	103
	8 Biphenyl	154	8.705	8.705	(0.888)	106058	100.000	103
	9 2,6-Dimethylnaphthalene	156	8.757	8.757	(0.893)	77002	100.000	101
	10 Acenaphthylene	152	9.653	9.653	(0.984)	104266	100.000	102
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	88696	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	68894	100.000	102
	13 Dibenzofuran	168	10.074	10.074	(1.027)	93172	100.000	104
	14 2,3,5-Trimethylnaphthalene	170	10.163	10.175	(1.036)	55392	100.000	100
	16 Fluorene	166	10.693	10.694	(1.090)	70376	100.000	102
	17 Dibenzothiophene	184	12.303	12.303	(0.986)	75681	100.000	103
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	133333	200.000	
	19 Phenanthrene	178	12.524	12.524	(1.003)	91690	100.000	105
	21 Anthracene	178	12.576	12.576	(1.008)	93350	100.000	107
	22 Carbazole	167	13.252	13.252	(1.062)	93185	100.000	100
	23 1-Methylphenanthrene	192	13.514	13.514	(1.083)	79759	100.000	104
$	24 Fluoranthene-d10	212	14.578	14.578	(1.168)	71947	100.000	103
	25 Fluoranthene	202	14.607	14.607	(1.170)	93032	100.000	107
	26 Pyrene	202	15.107	15.107	(1.210)	94506	100.000	106
	27 Benzo(a)anthracene	228	17.122	17.122	(0.995)	60945	100.000	98.7
*	28 Chrysene-d12	240	17.214	17.214	(1.000)	84043	200.000	
	29 Chrysene	228	17.264	17.264	(1.003)	72419	100.000	104
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	44811	100.000	89.1
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	68697	100.000	104
	32 Benzo(j)fluoranthene	252	19.058	19.058	(0.954)	78190	100.000	110
	34 Benzo(e)pyrene	252	19.673	19.673	(0.985)	55540	100.000	97.6
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	50984	100.000	97.1
*	36 Perylene-d12	264	19.981	19.981	(1.000)	92362	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	37 Perylene	252	20.048	20.048	(1.003)	59308	100.000	99.1
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	27361	100.000	76.8
	39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	35961	100.000	84.0
	40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	46079	100.000	90.4
	41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	49655	100.000	97.4

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082707.D
Lab Smp Id: SIH0304-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	198254	-7.93
11 Acenaphthene-d10	102217	51109	204434	88696	-13.23
18 Phenanthrene-d10	170387	85194	340774	133333	-21.75
28 Chrysene-d12	116138	58069	232276	84043	-27.64
36 Perylene-d12	139038	69519	278076	92362	-33.57

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.21	-0.00
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082707.D

Lab ID: SIH0304-CAL3
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 15:08

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Page 1

Date : 27-AUG-2020 15:38

Client ID:

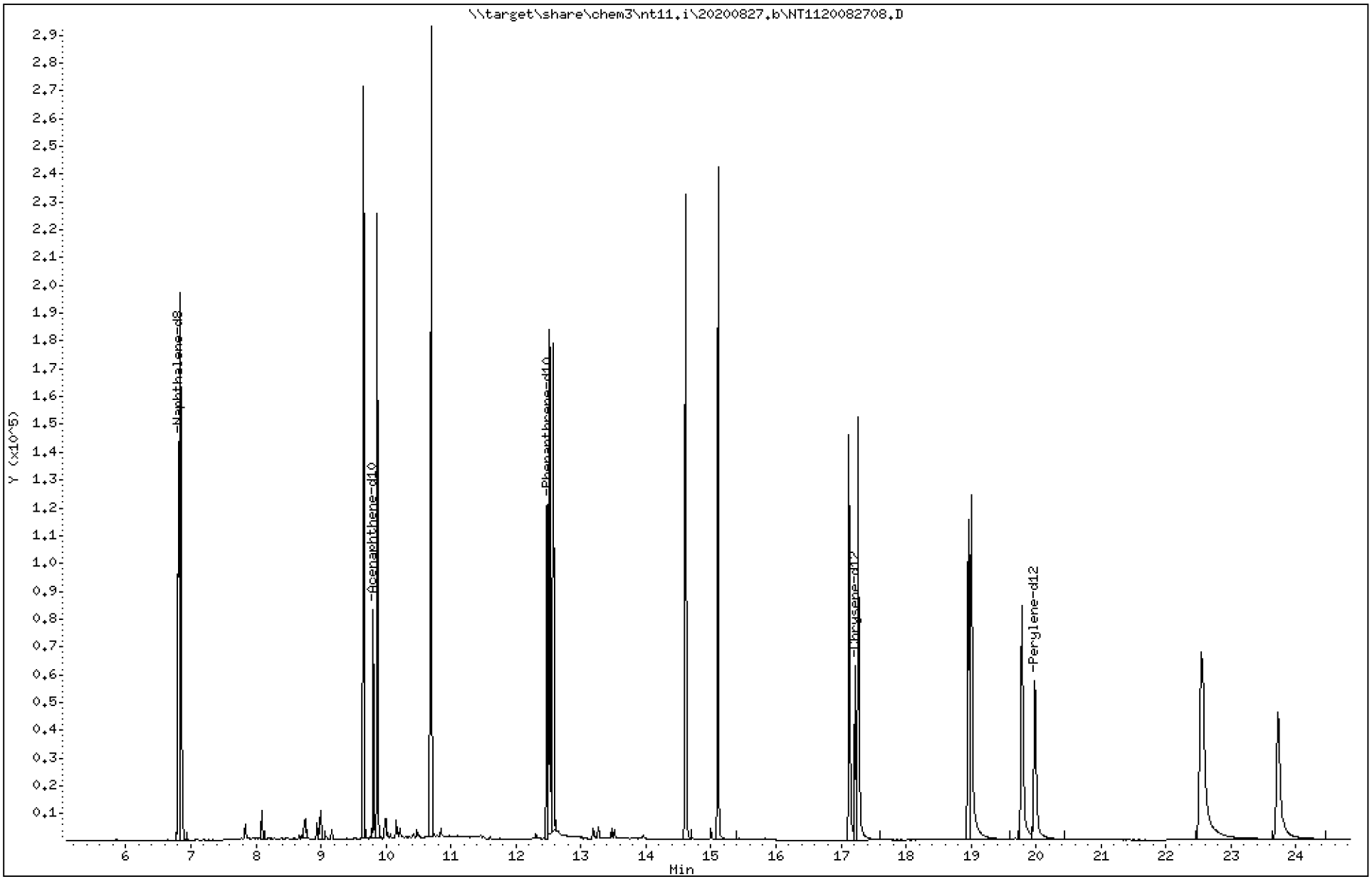
Instrument: nt11.i

Sample Info: SIH0304-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

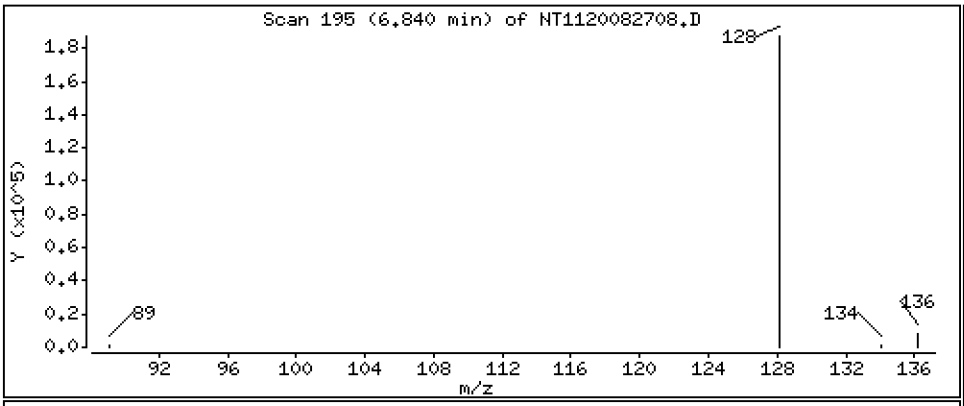
Operator: VTS

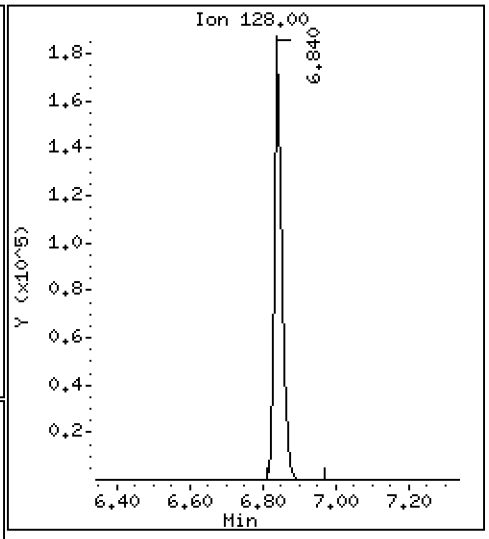
Column phase: Rxi-17Sil MS

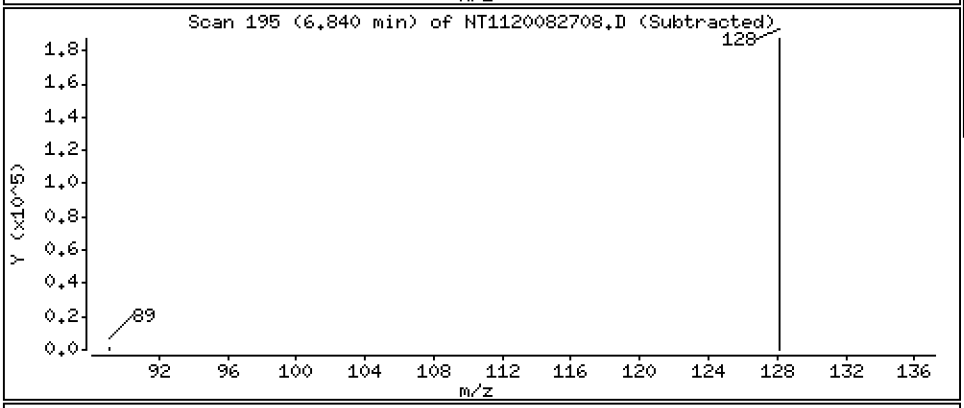
Column diameter: 0.25

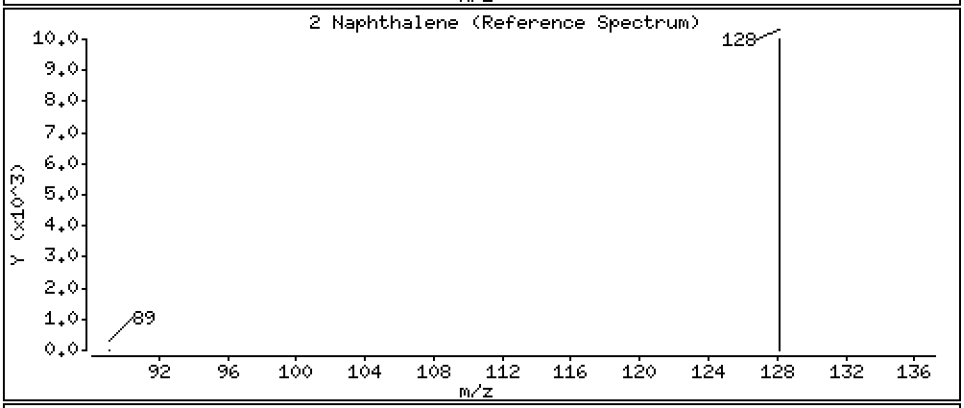
2 Naphthalene

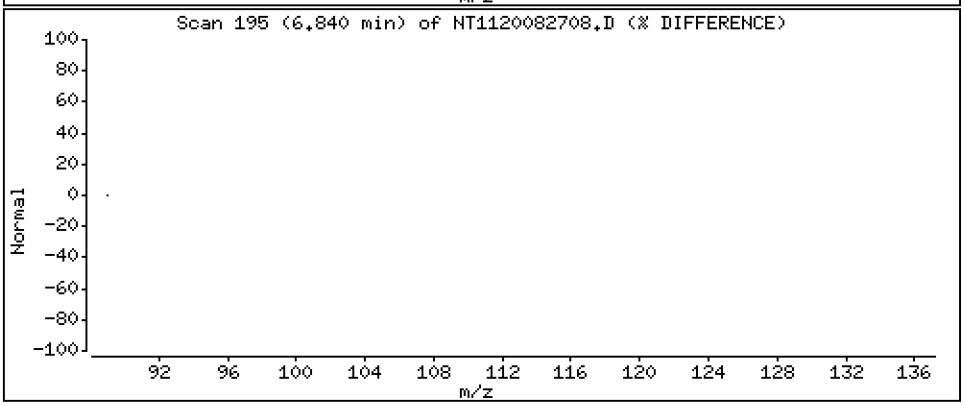
Concentration: 224 ng/mL











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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

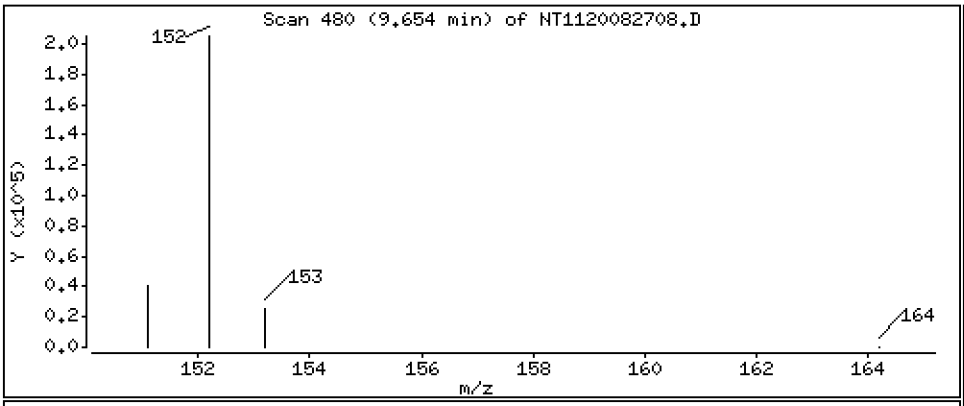
Operator: VTS

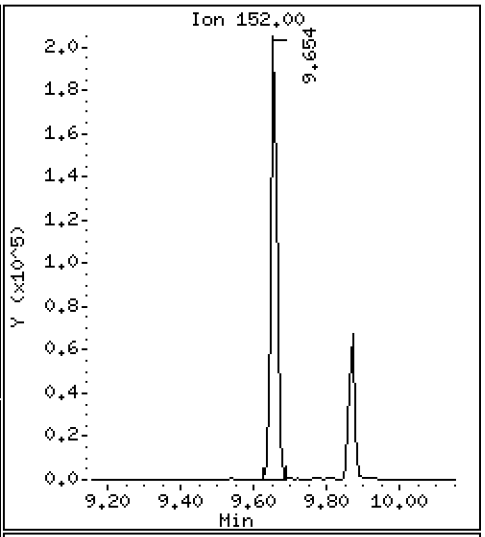
Column phase: Rxi-17Sil MS

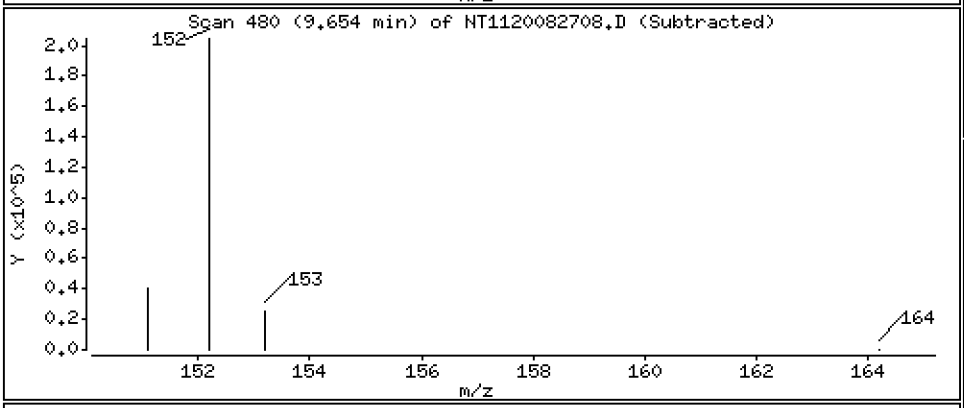
Column diameter: 0.25

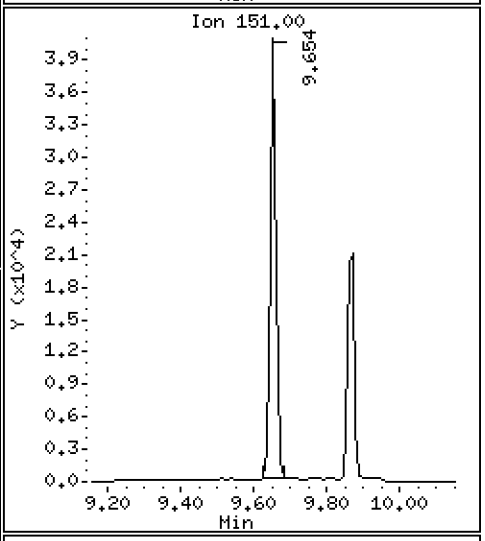
10 Acenaphthylene

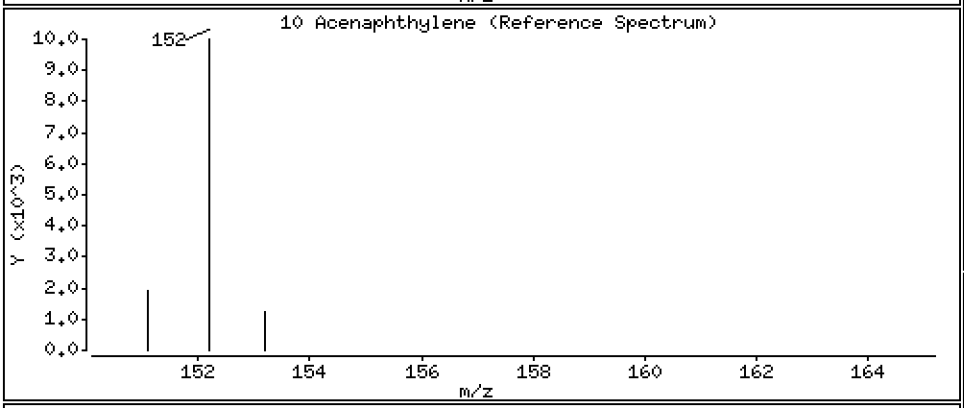
Concentration: 233 ng/mL

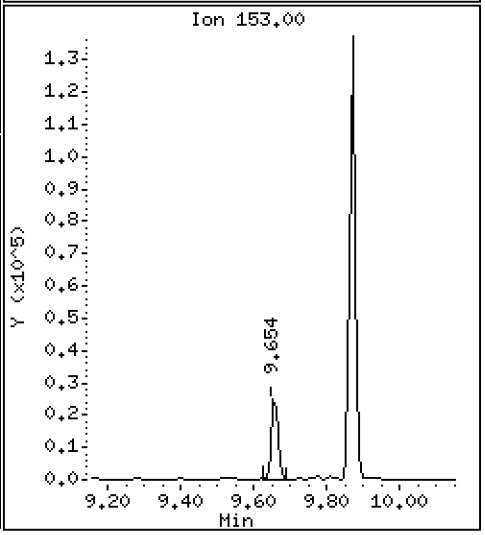


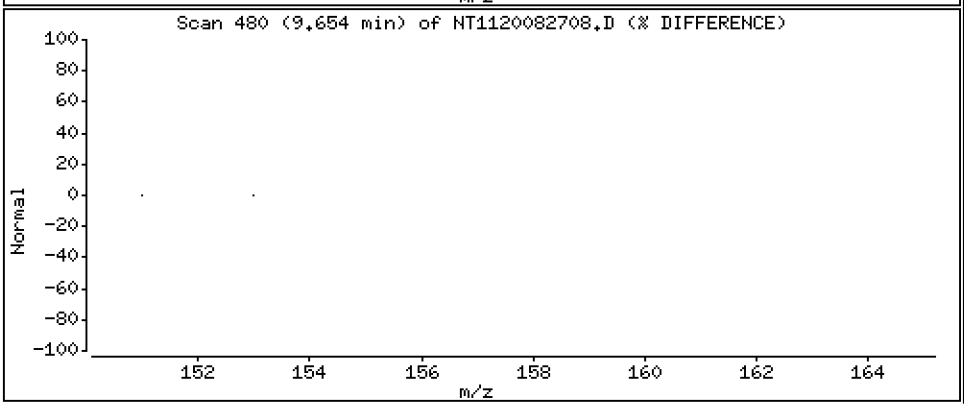












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

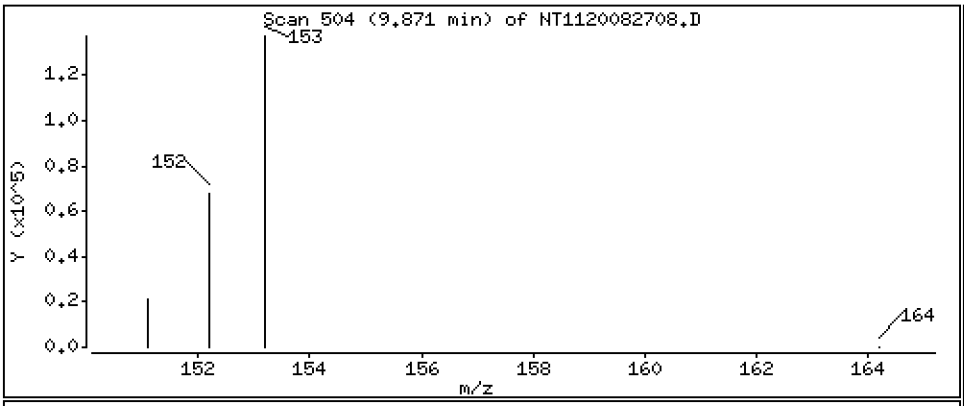
Operator: VTS

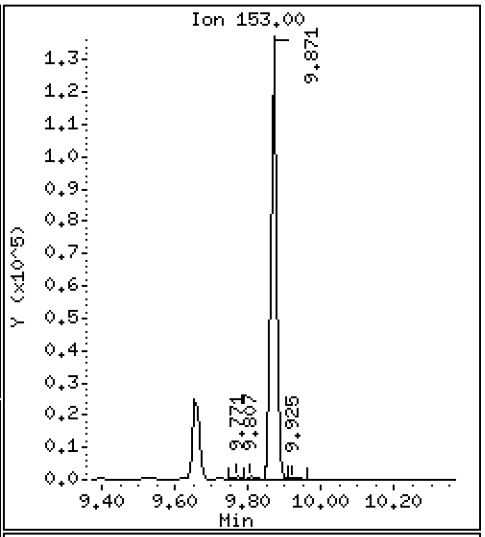
Column phase: Rxi-17Sil MS

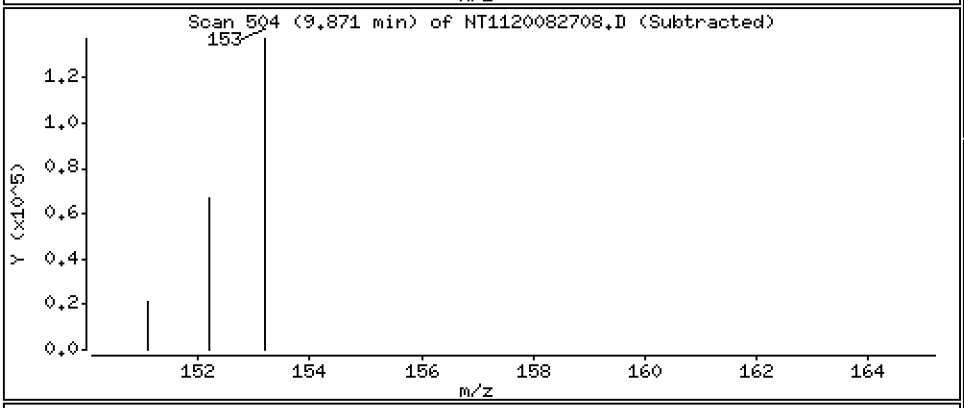
Column diameter: 0.25

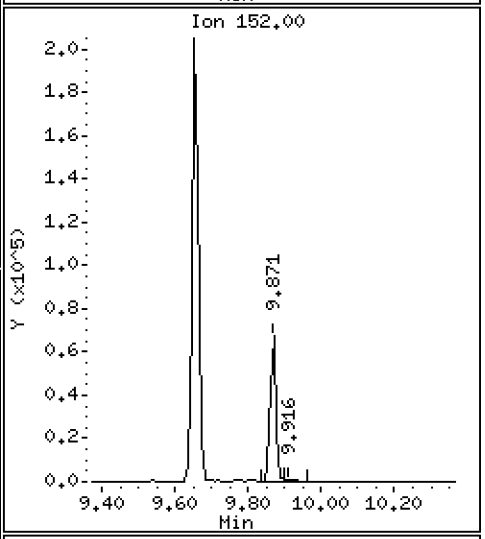
12 Acenaphthene

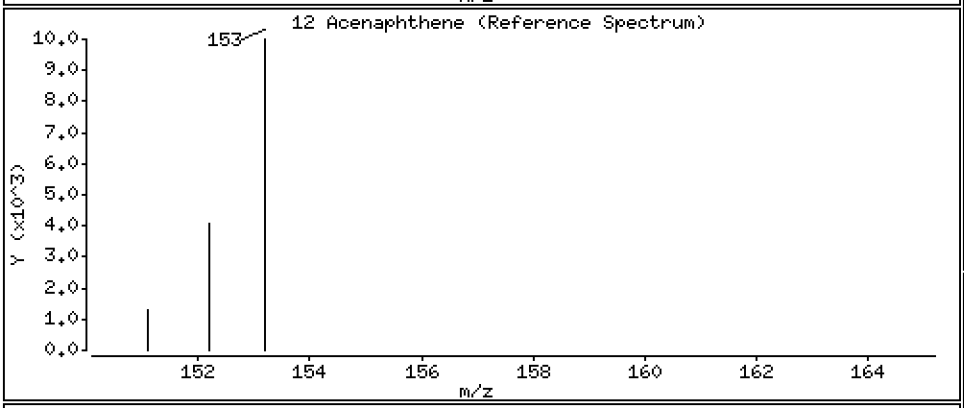
Concentration: 222 ng/mL

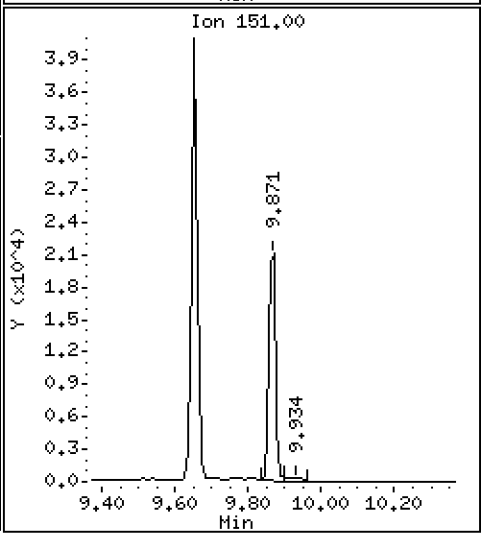


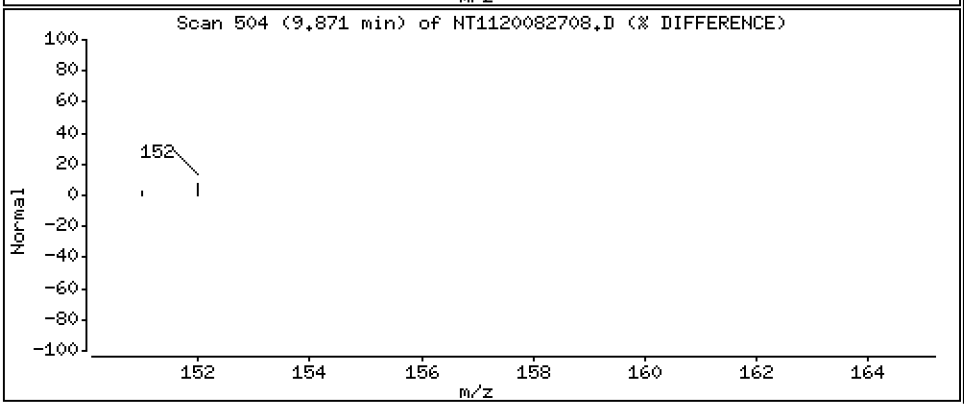












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

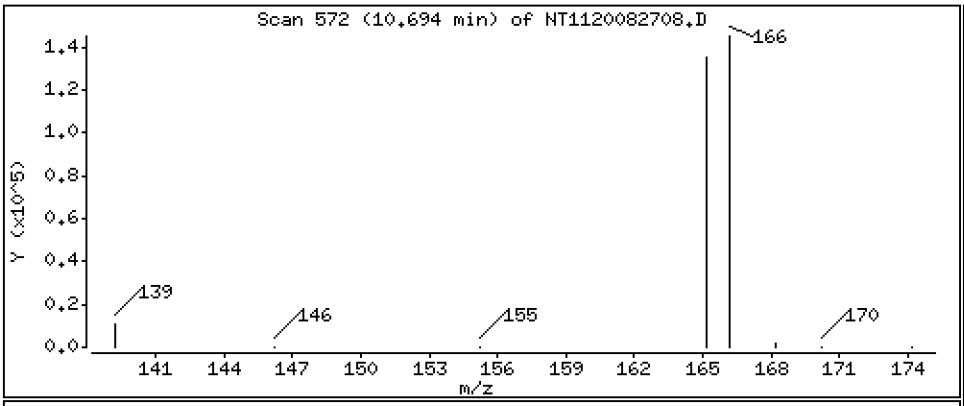
Operator: VTS

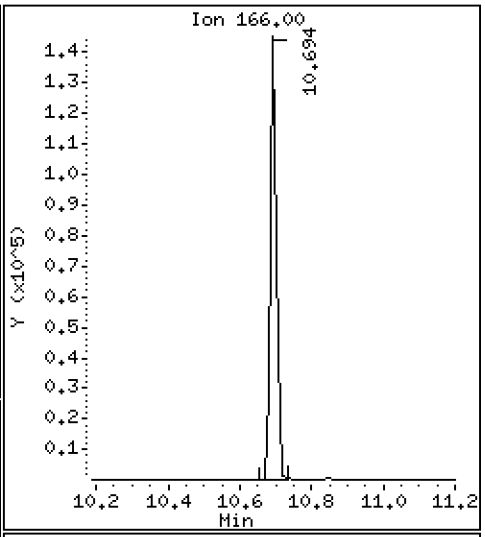
Column phase: Rxi-17Sil MS

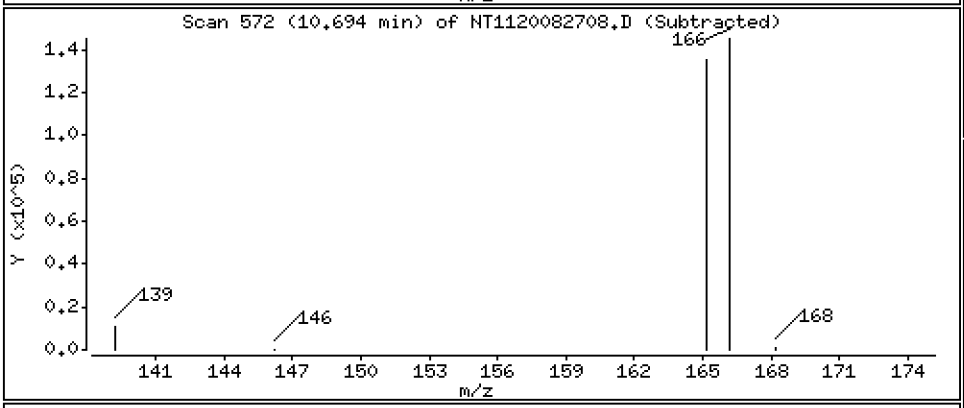
Column diameter: 0.25

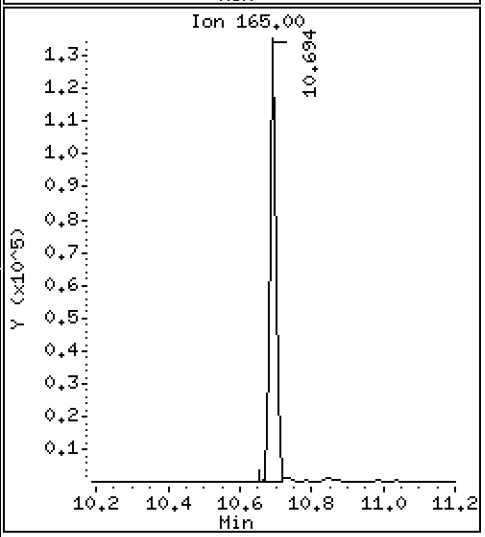
16 Fluorene

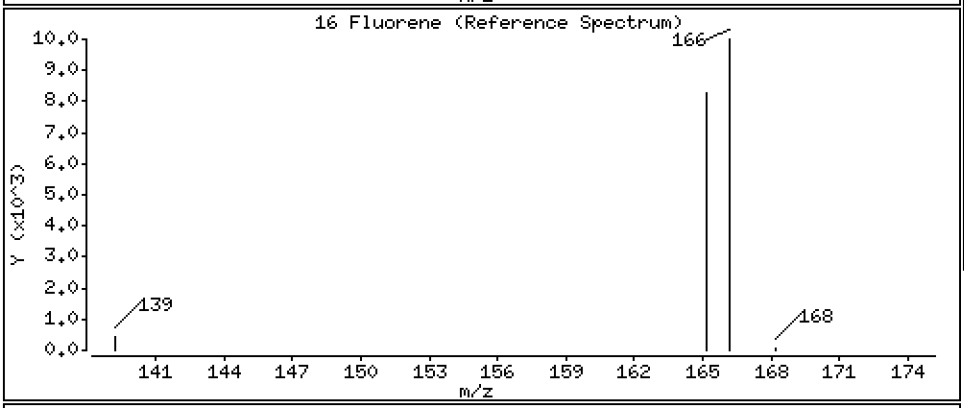
Concentration: 233 ng/mL

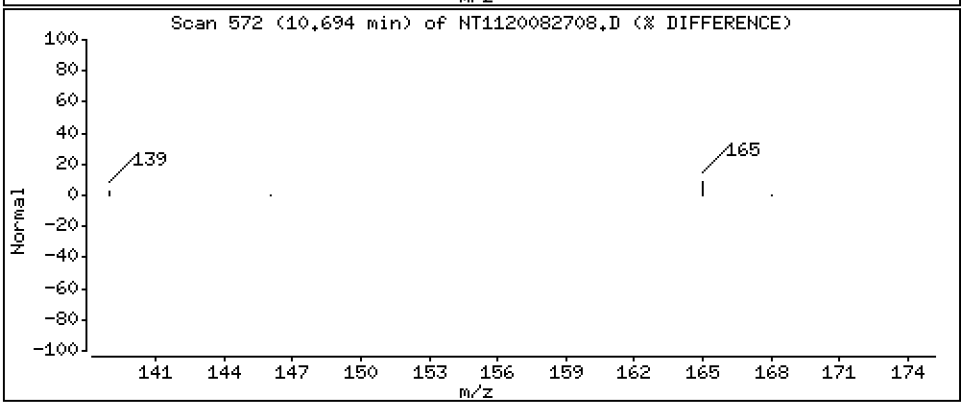












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

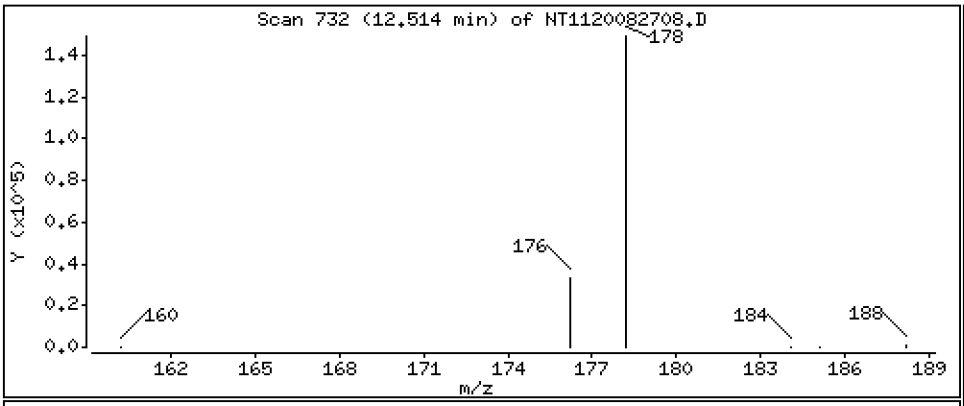
Operator: VTS

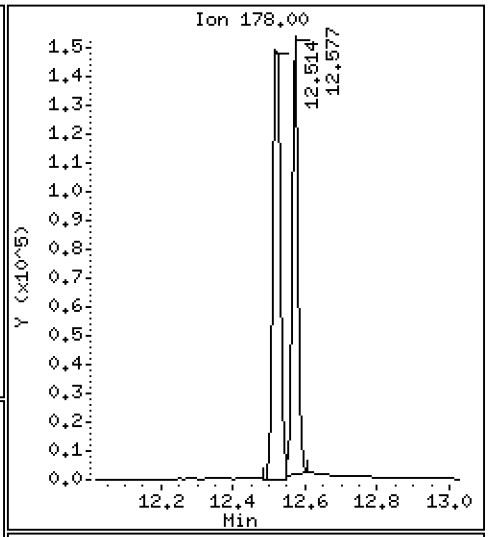
Column phase: Rxi-17Sil MS

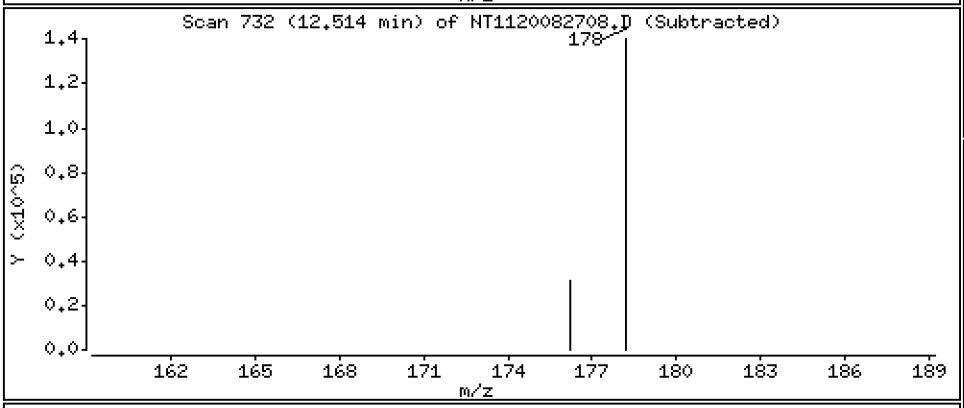
Column diameter: 0.25

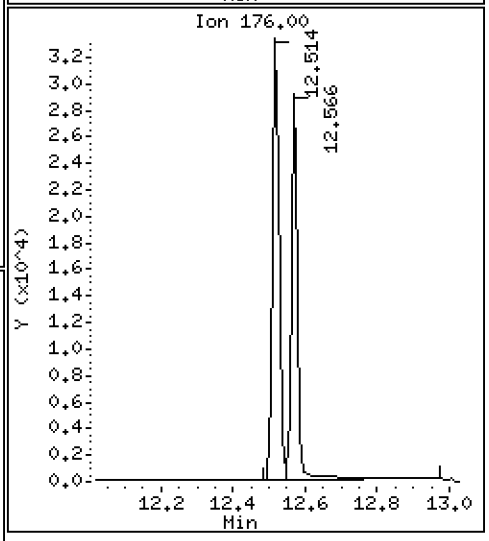
19 Phenanthrene

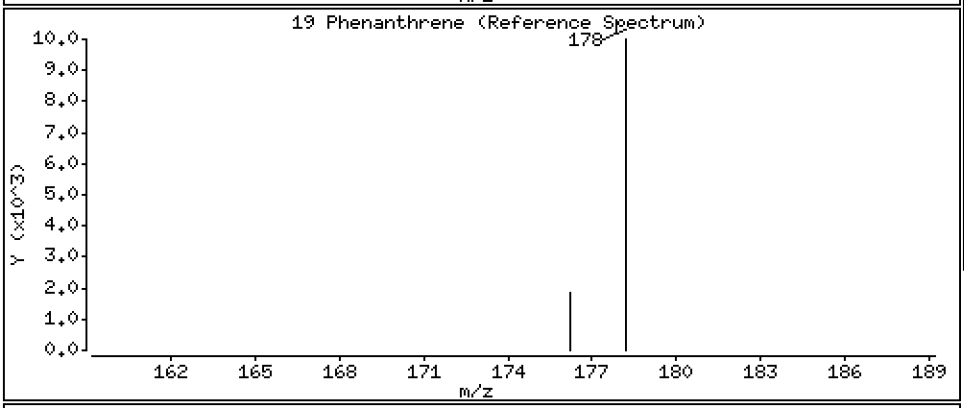
Concentration: 233 ng/mL

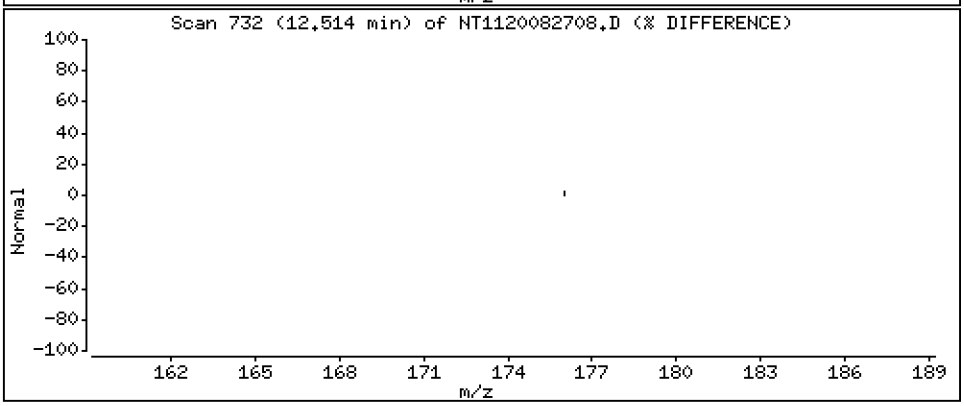












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

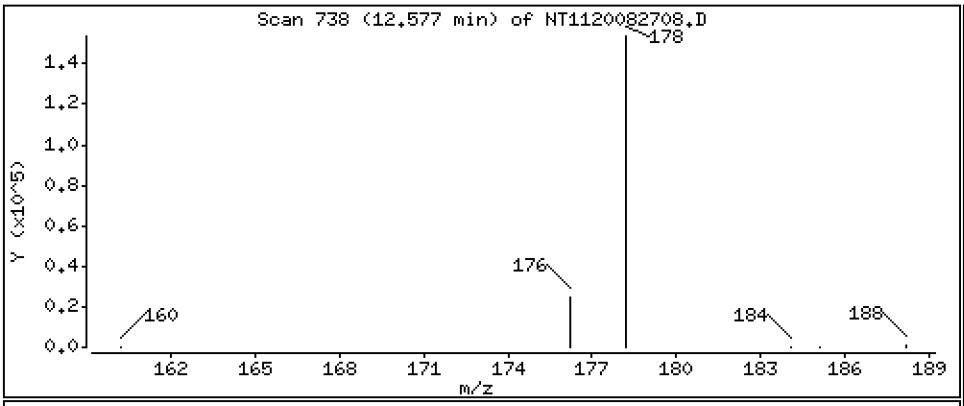
Operator: VTS

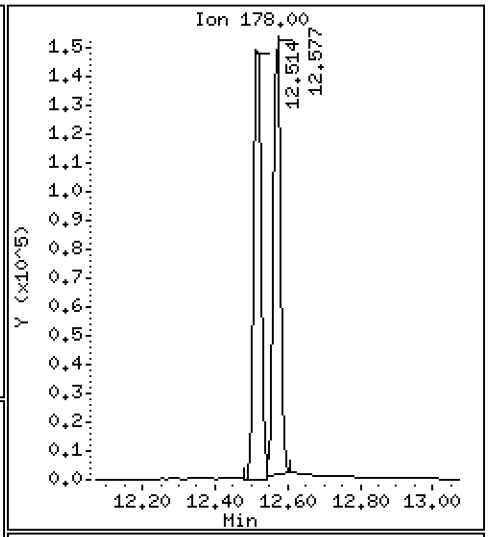
Column phase: Rxi-17Sil MS

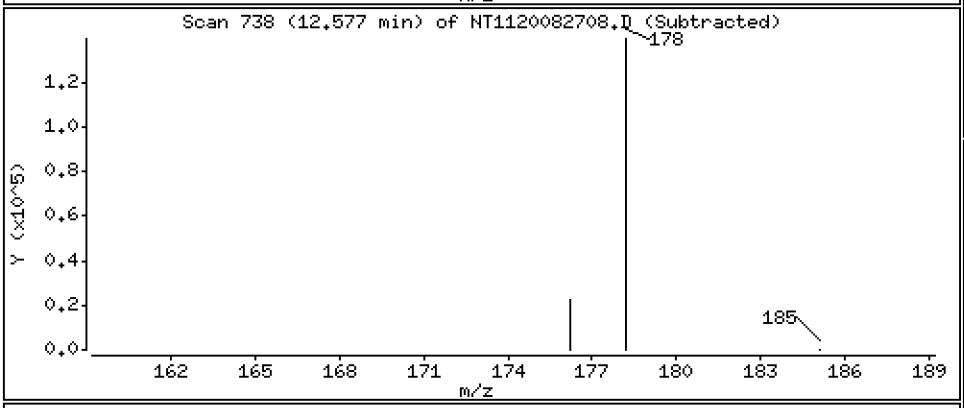
Column diameter: 0.25

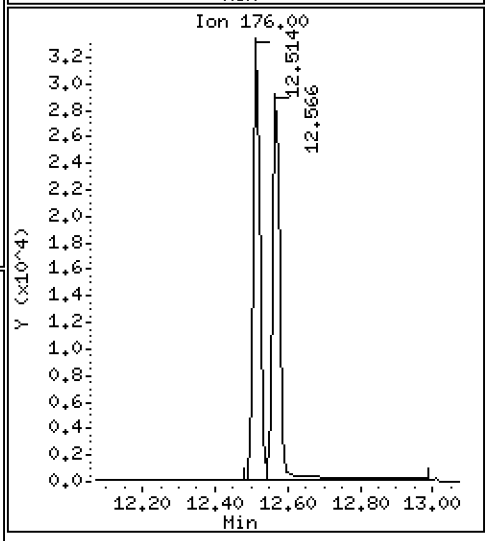
21 Anthracene

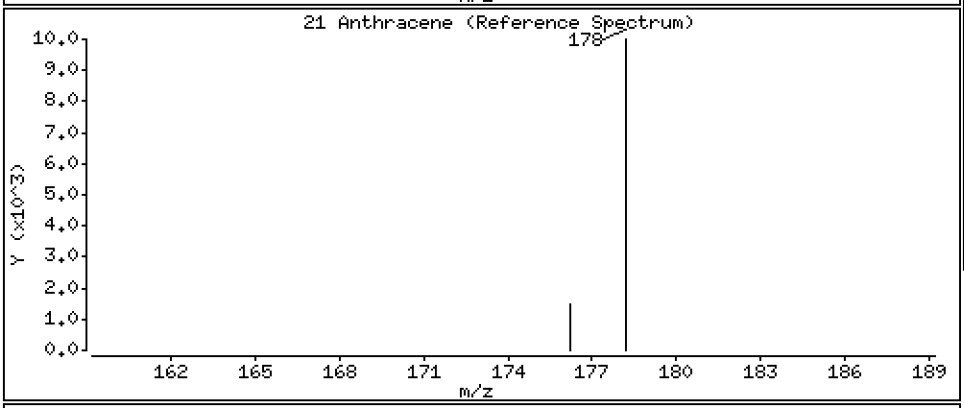
Concentration: 223 ng/mL

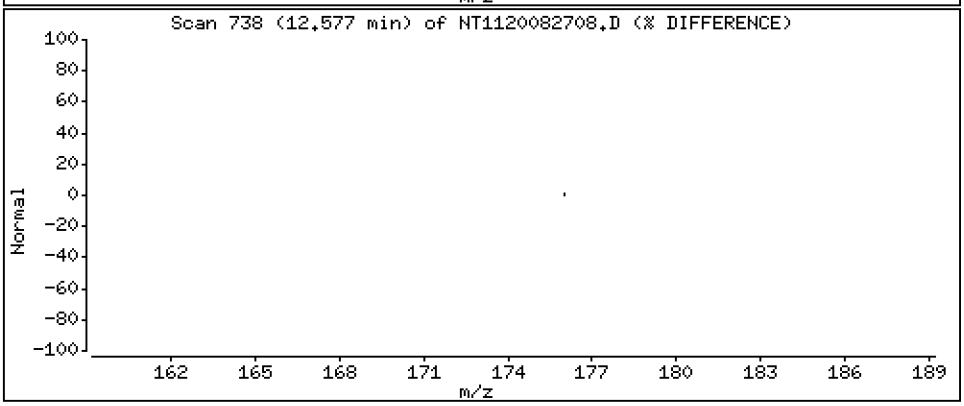












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

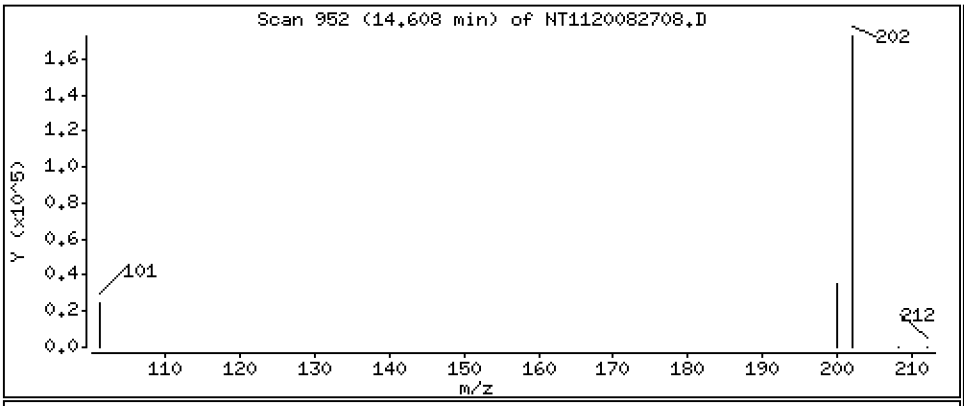
Operator: VTS

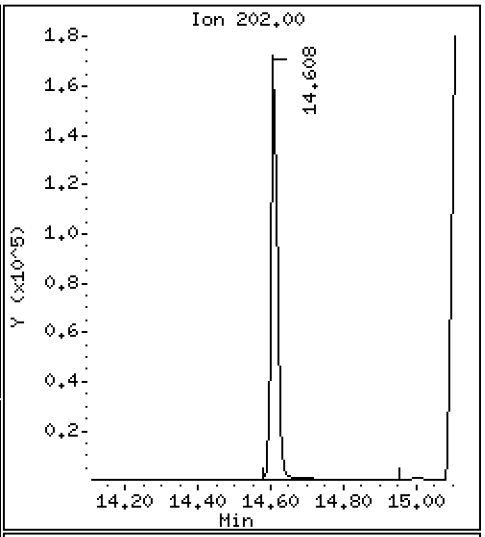
Column phase: Rxi-17Sil MS

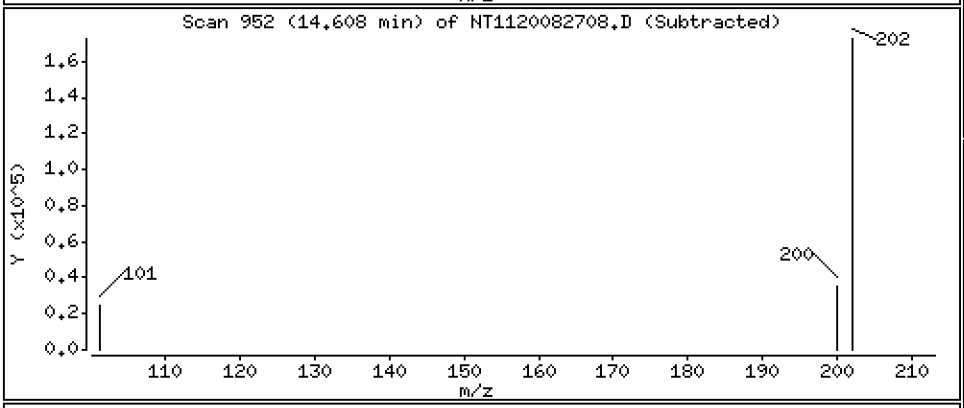
Column diameter: 0.25

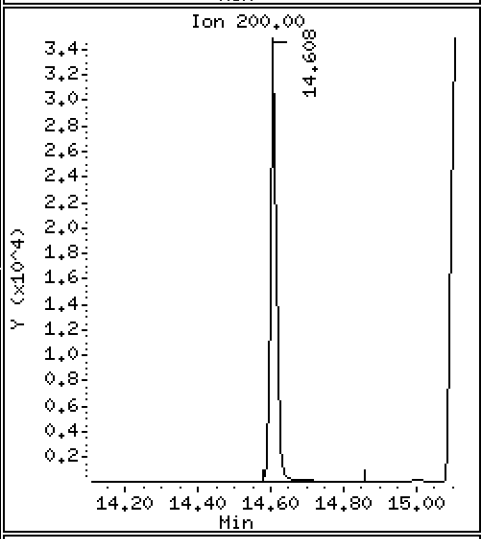
25 Fluoranthene

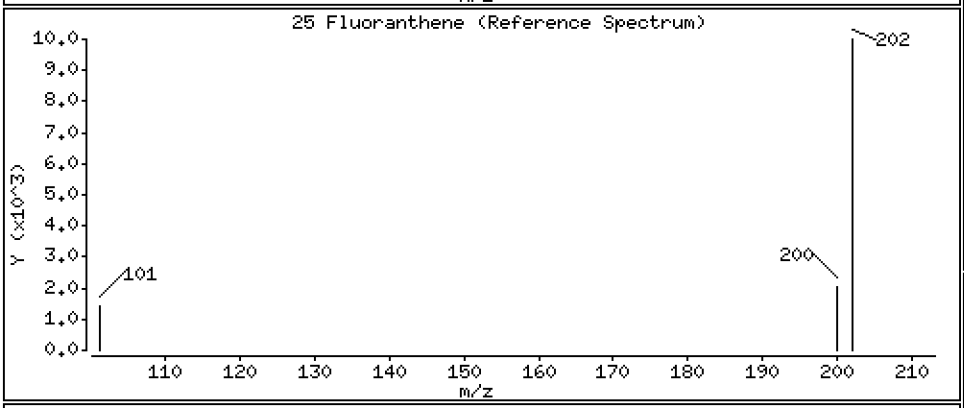
Concentration: 236 ng/mL

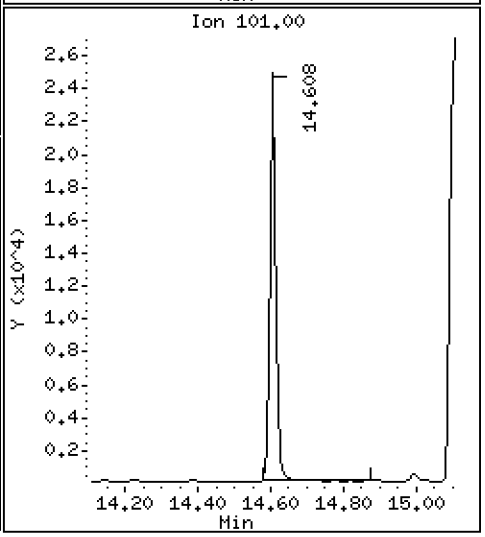


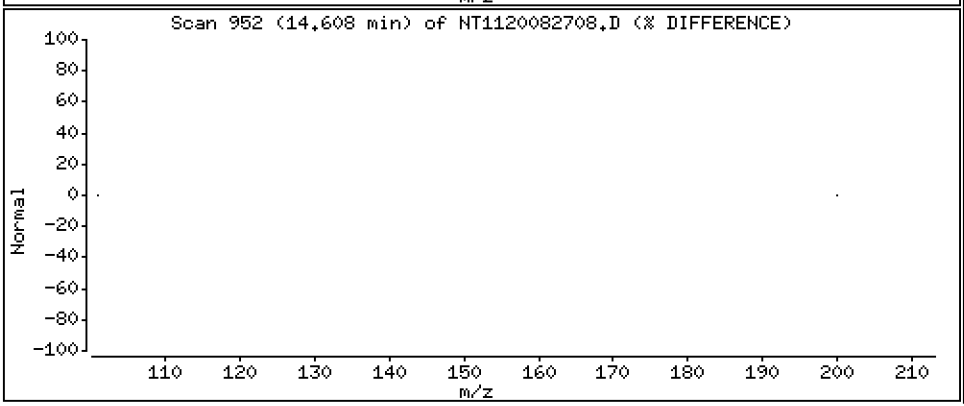












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

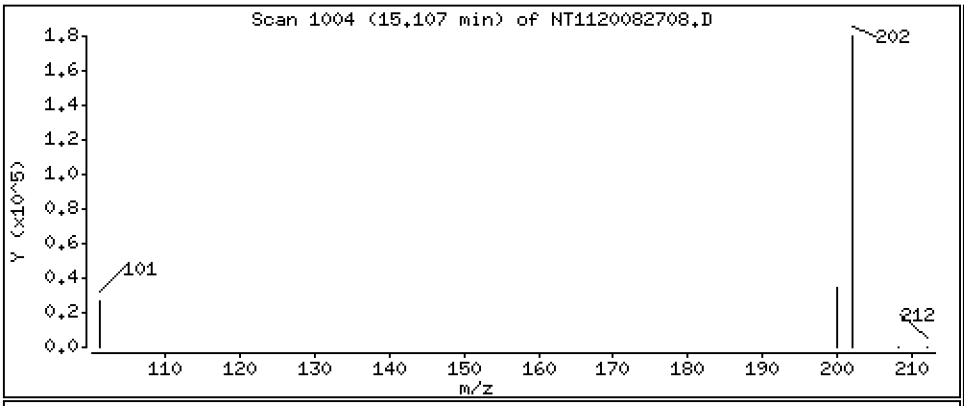
Operator: VTS

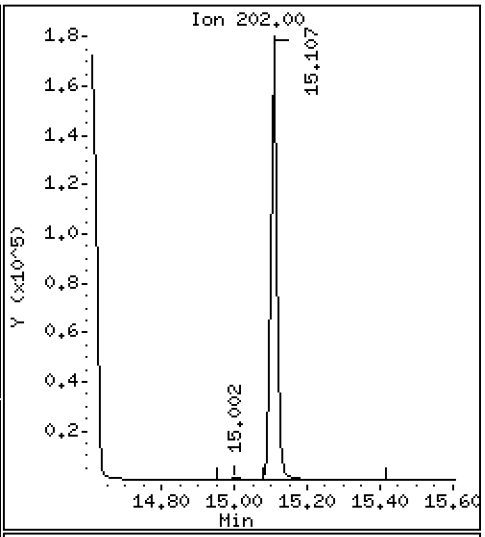
Column phase: Rxi-17Sil MS

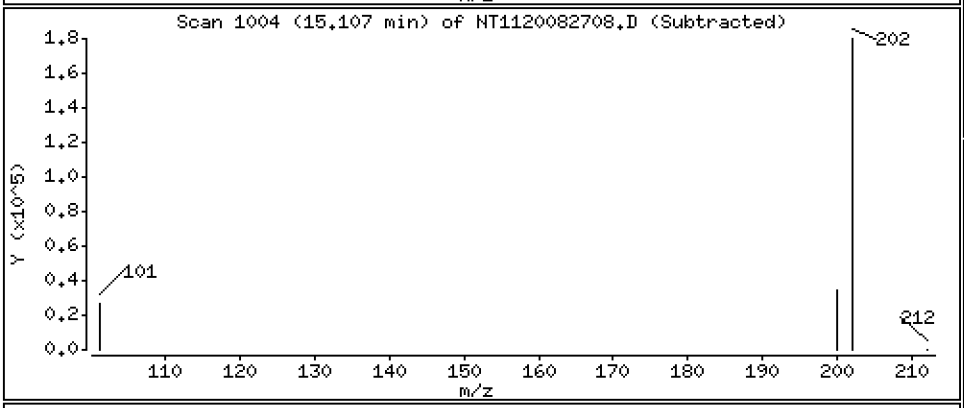
Column diameter: 0.25

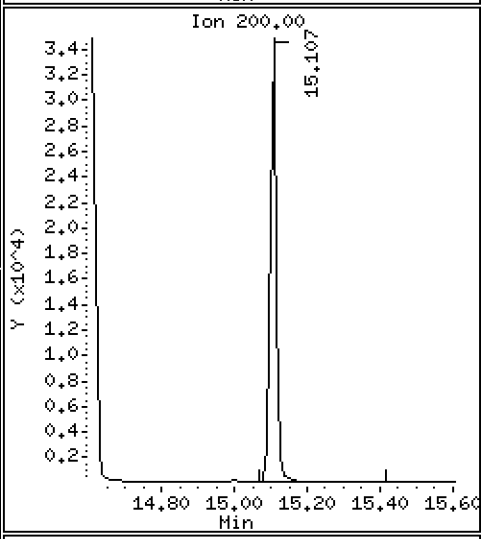
26 Pyrene

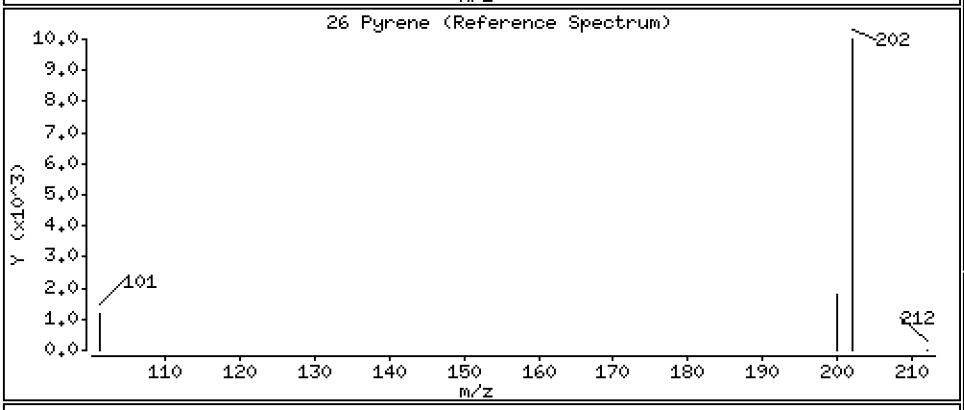
Concentration: 235 ng/mL

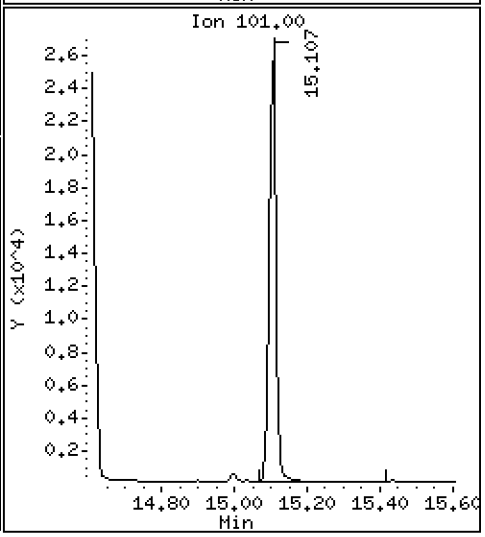


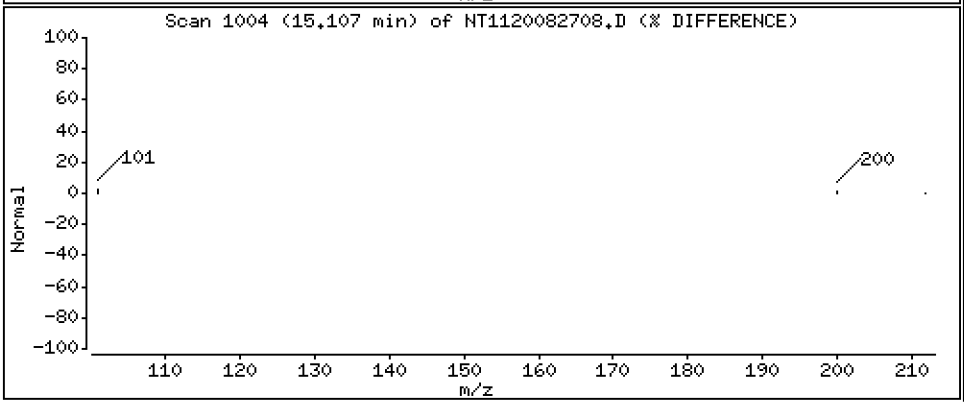












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

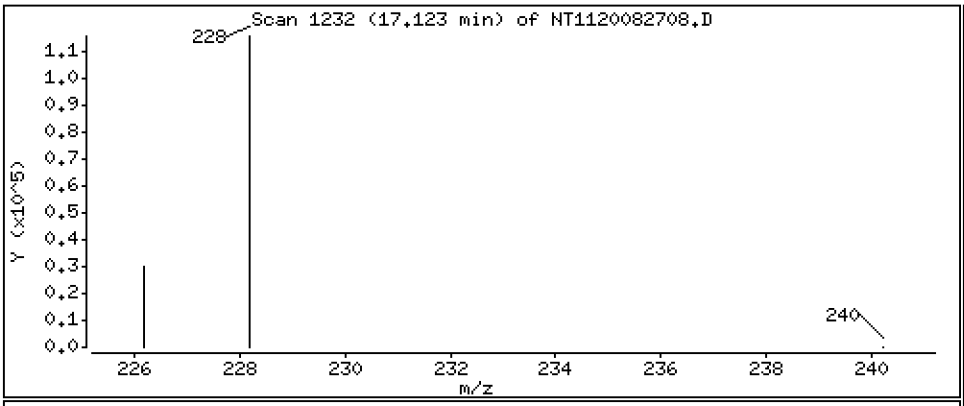
Operator: VTS

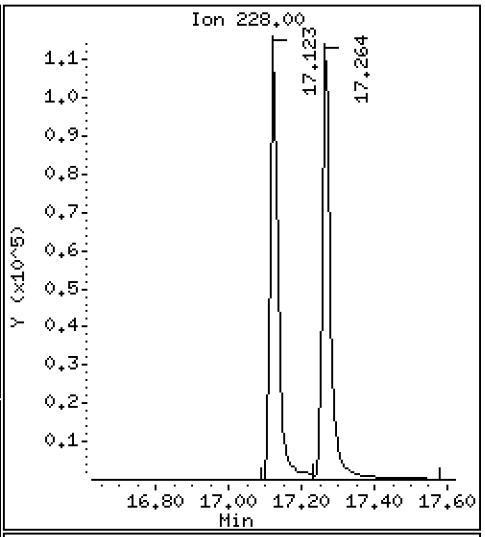
Column phase: Rxi-17Sil MS

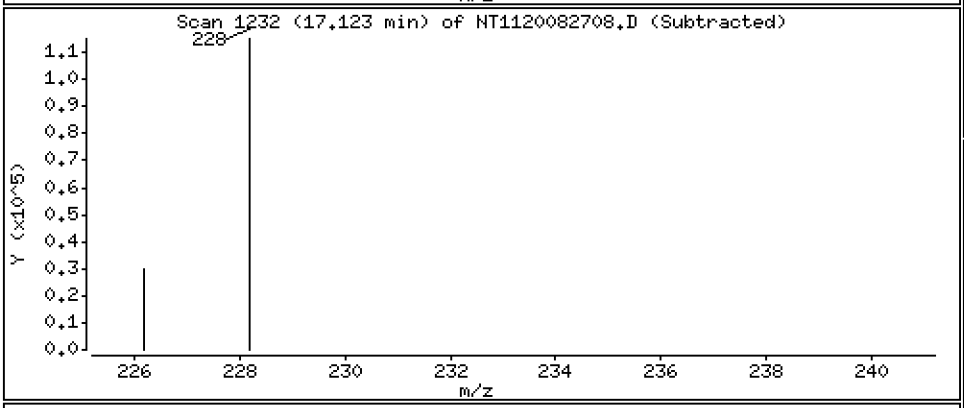
Column diameter: 0.25

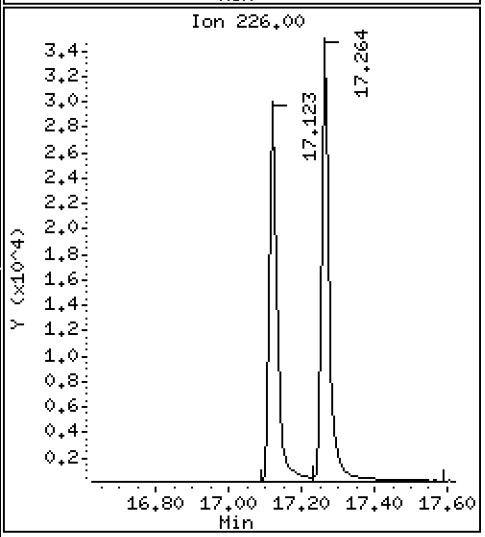
27 Benzo(a)anthracene

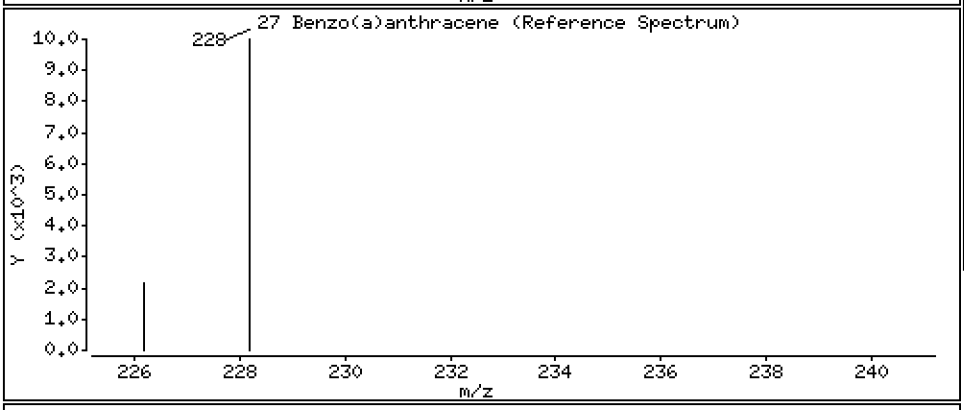
Concentration: 223 ng/mL

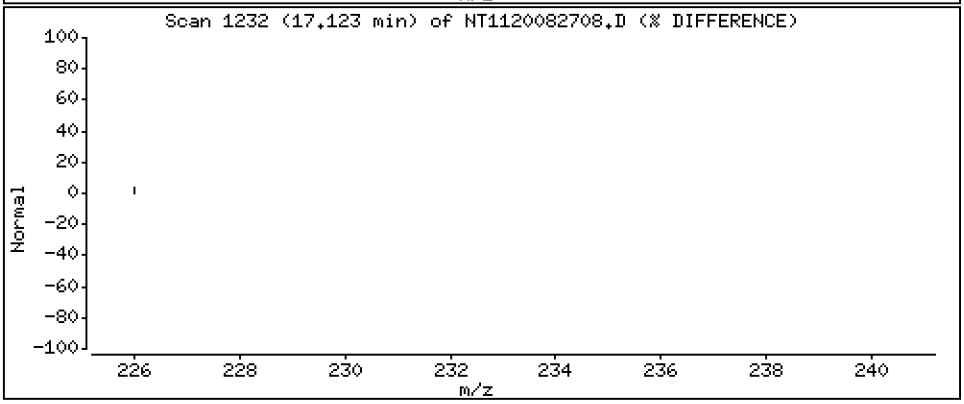












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

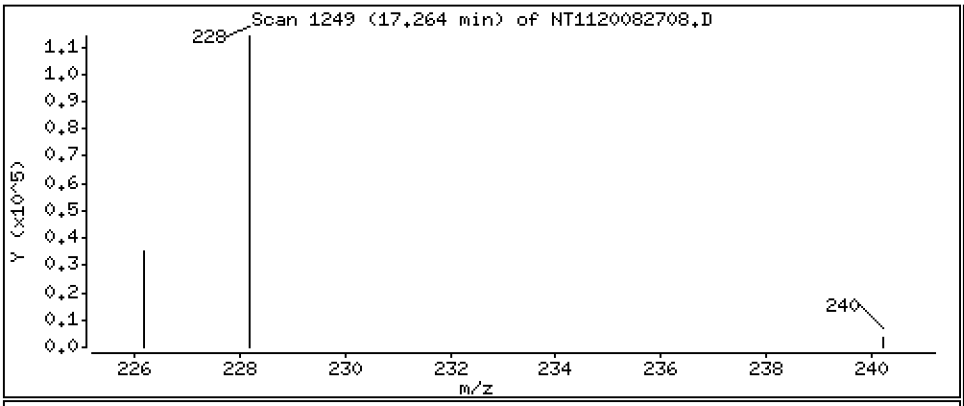
Operator: VTS

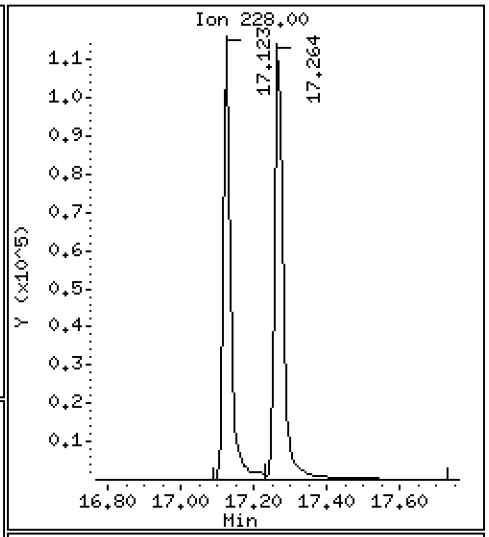
Column phase: Rxi-17Sil MS

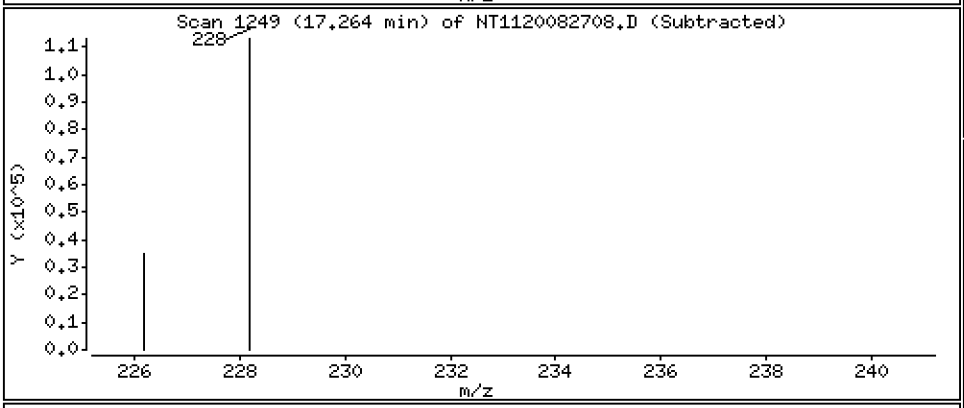
Column diameter: 0.25

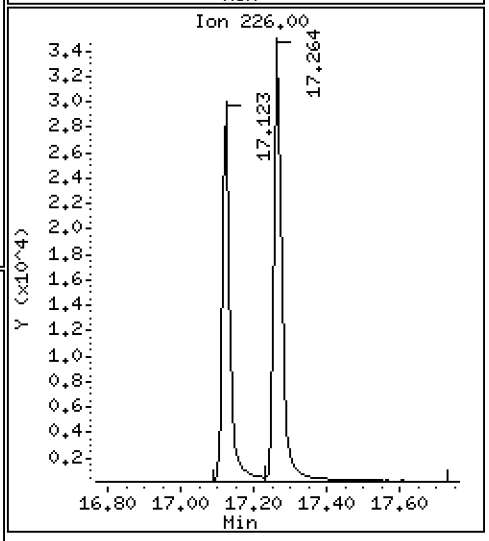
29 Chrysene

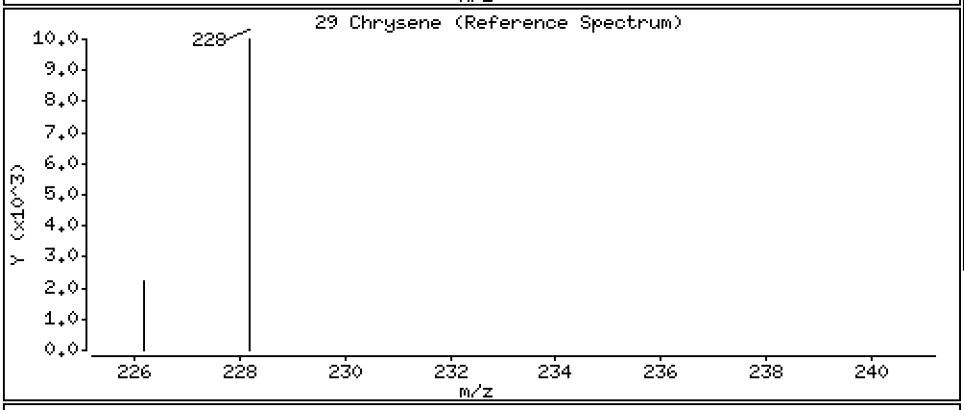
Concentration: 215 ng/mL

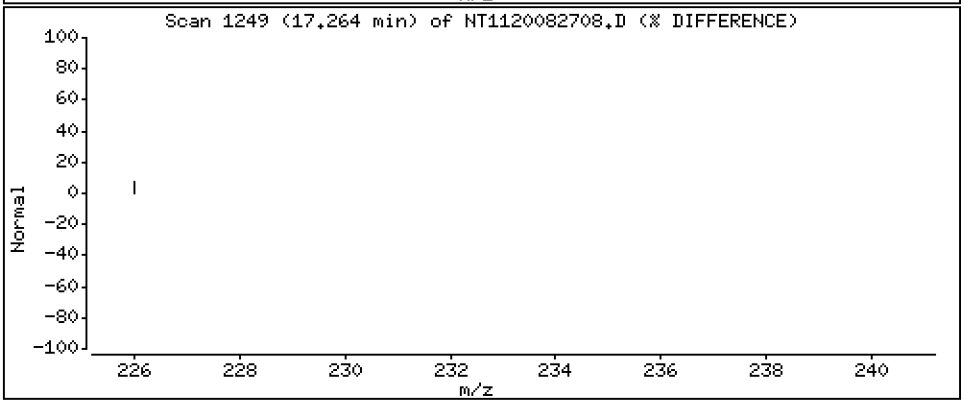












Date : 27-AUG-2020 15:38

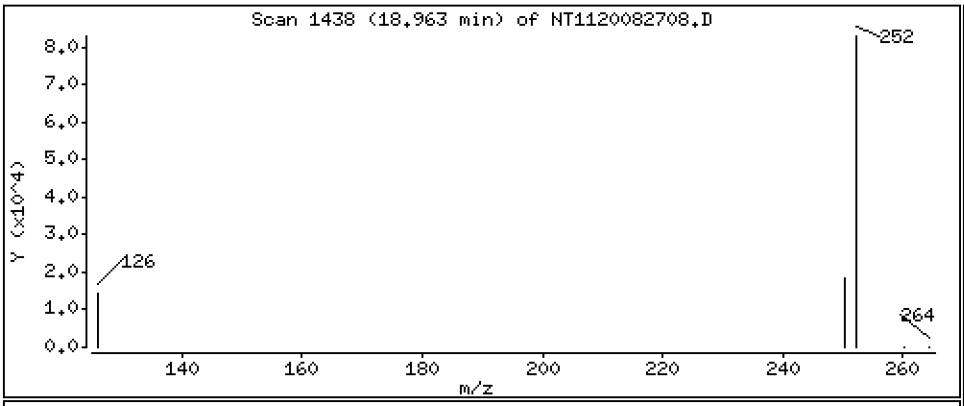
Client ID: Instrument: nt11.i

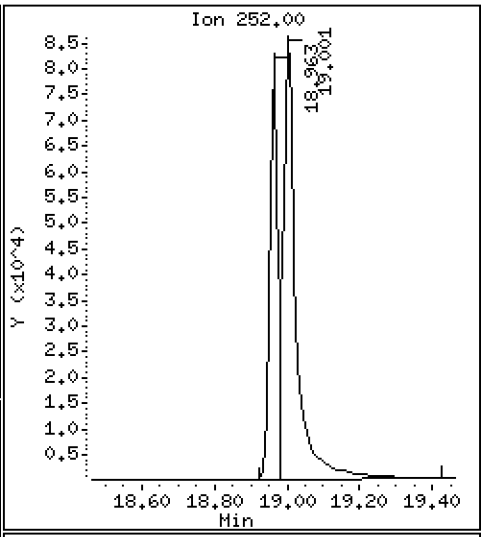
Sample Info: SIH0304-SCV1

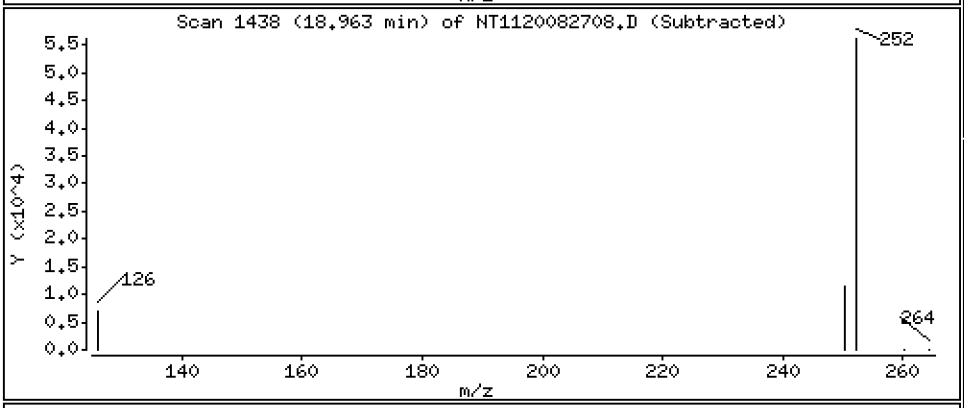
Operator: VTS

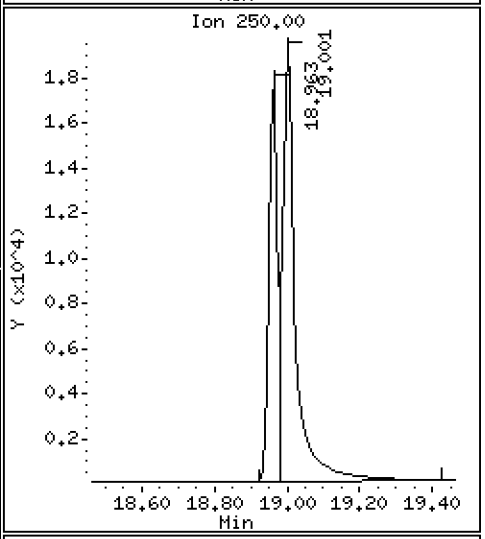
Column phase: Rxi-17Sil MS Column diameter: 0.25

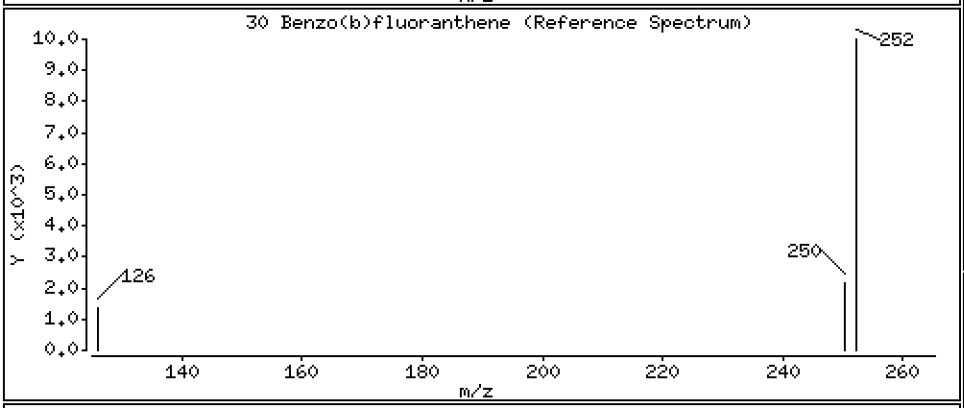
30 Benzo(b)fluoranthene Concentration: 212 ng/mL

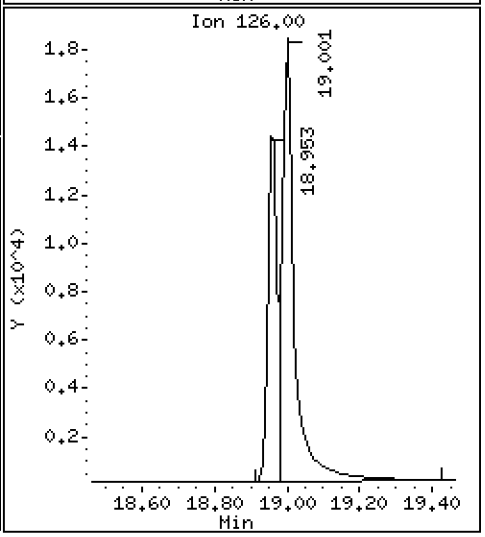


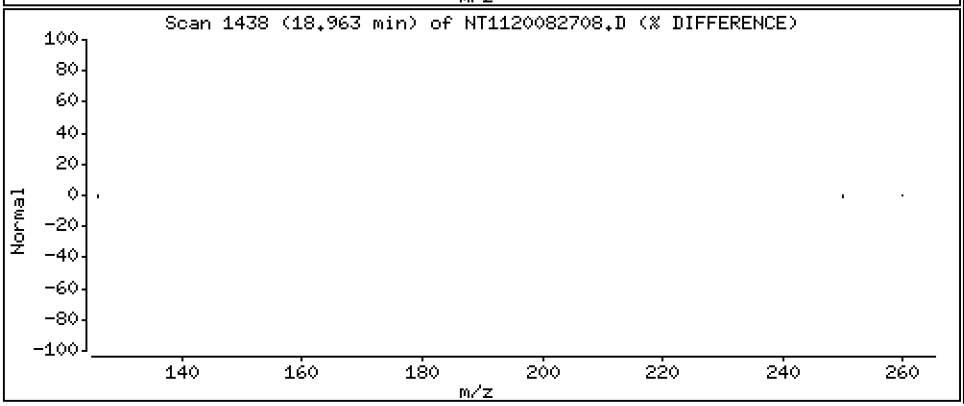












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

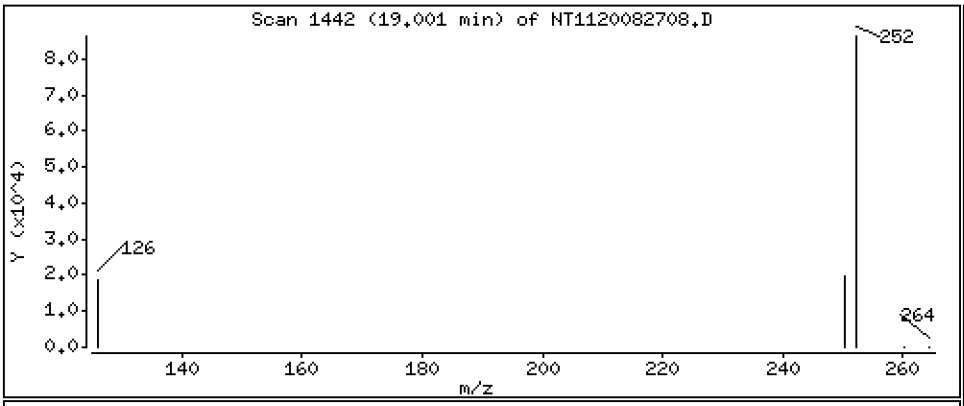
Operator: VTS

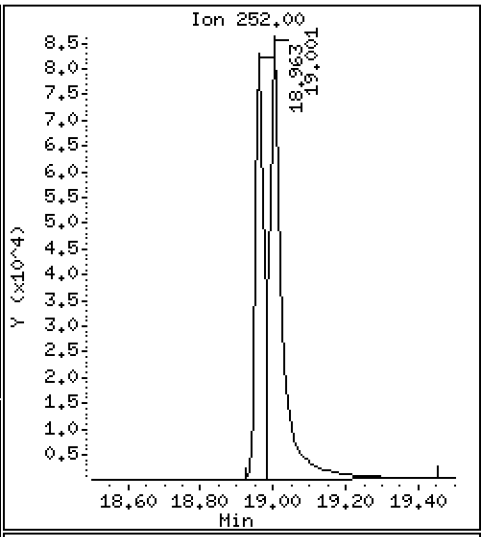
Column phase: Rxi-17Sil MS

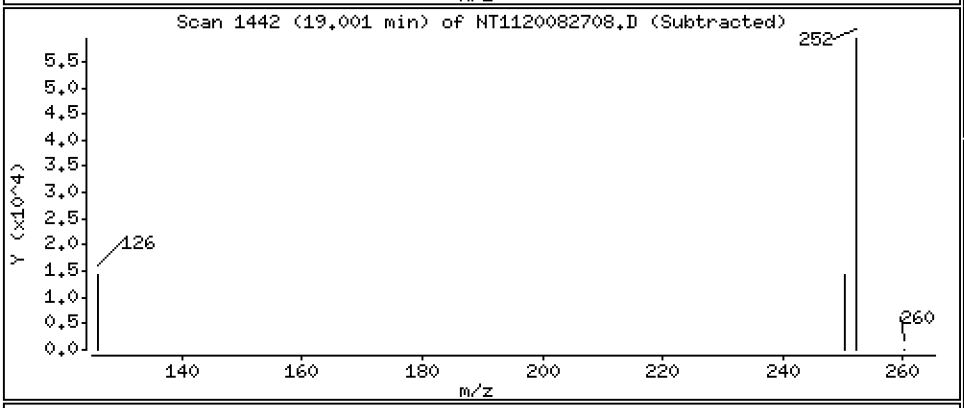
Column diameter: 0.25

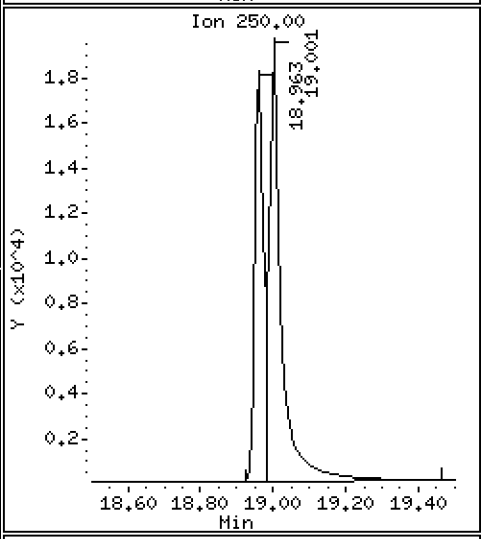
31 Benzo(k)fluoranthene

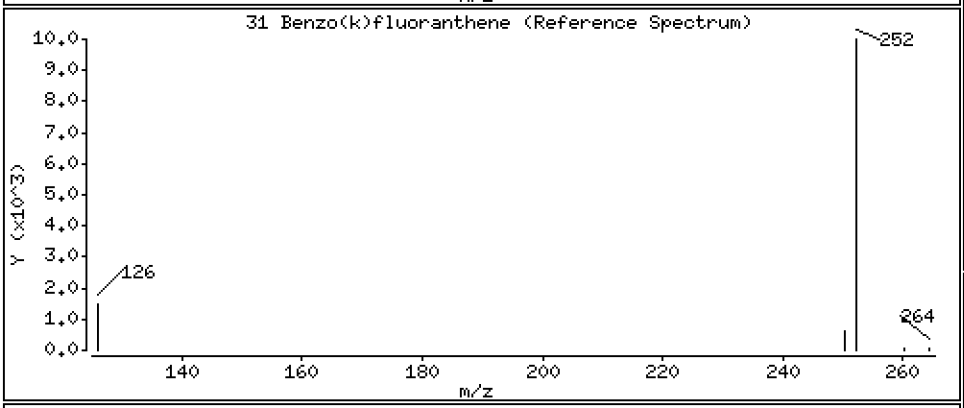
Concentration: 260 ng/mL

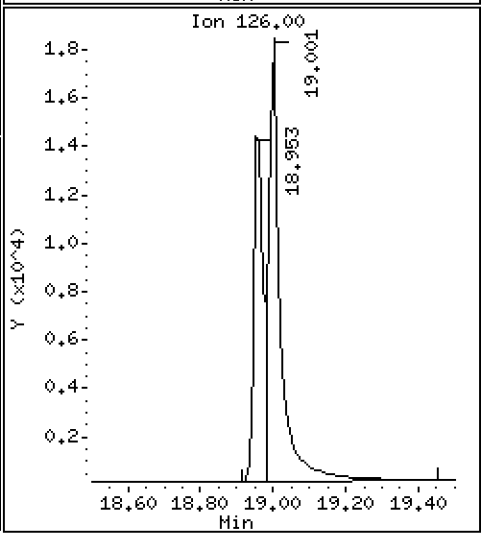


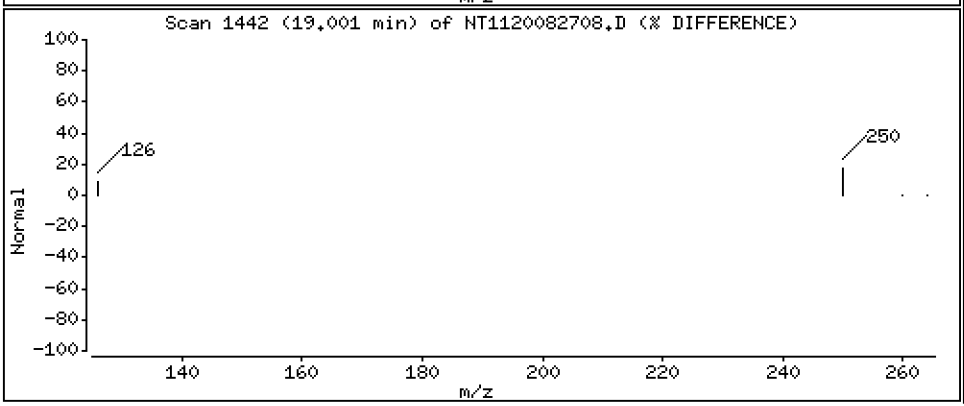












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Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

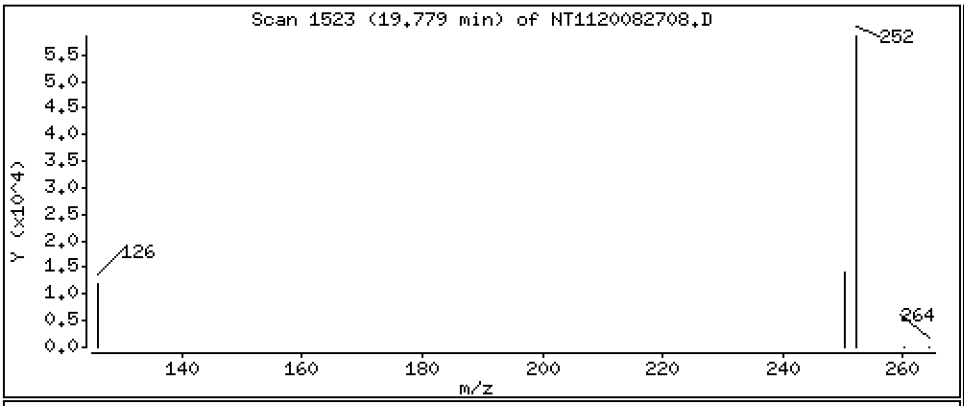
Operator: VTS

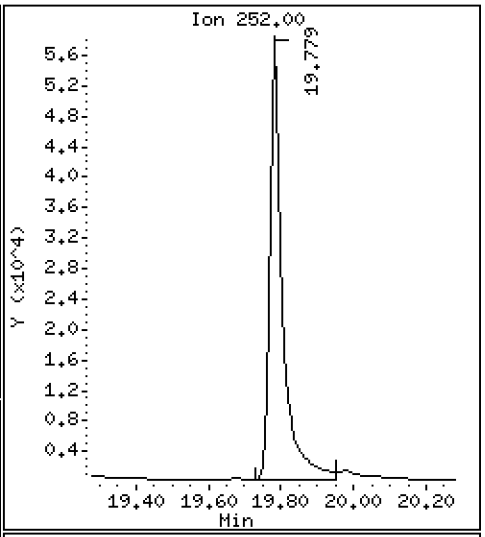
Column phase: Rxi-17Sil MS

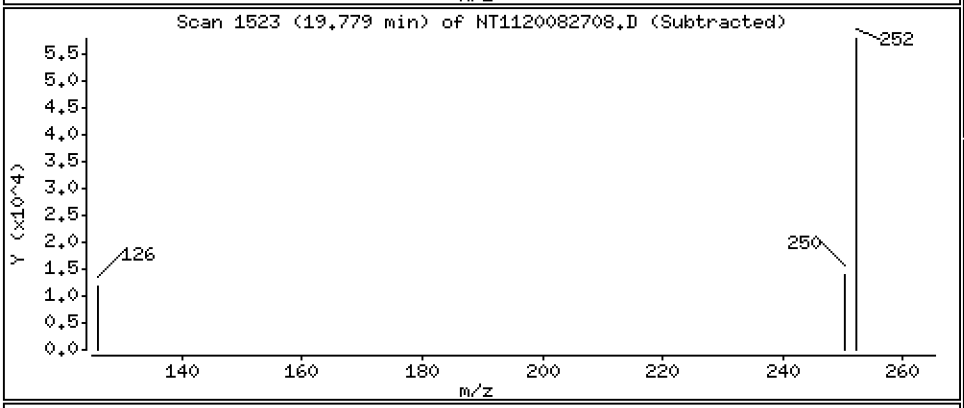
Column diameter: 0.25

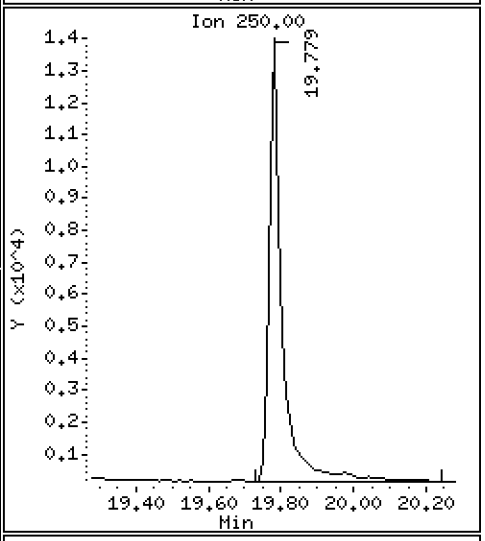
35 Benzo(a)pyrene

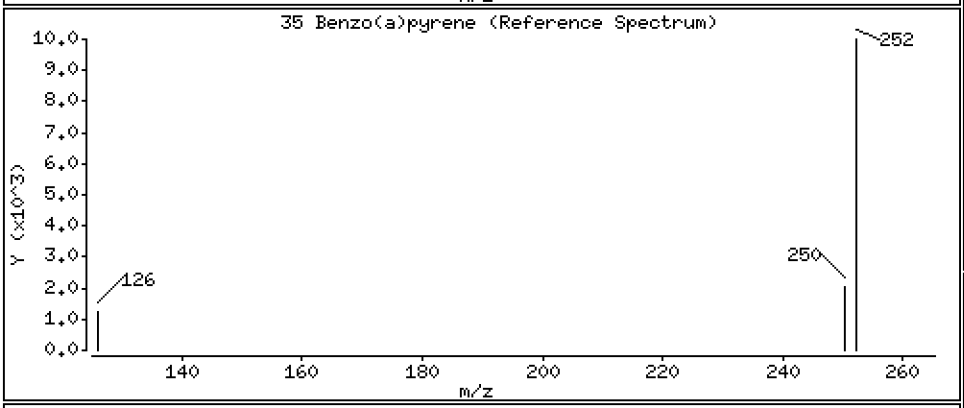
Concentration: 213 ng/mL

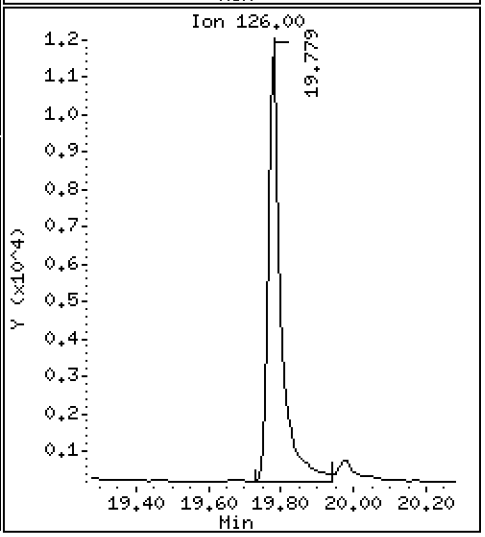


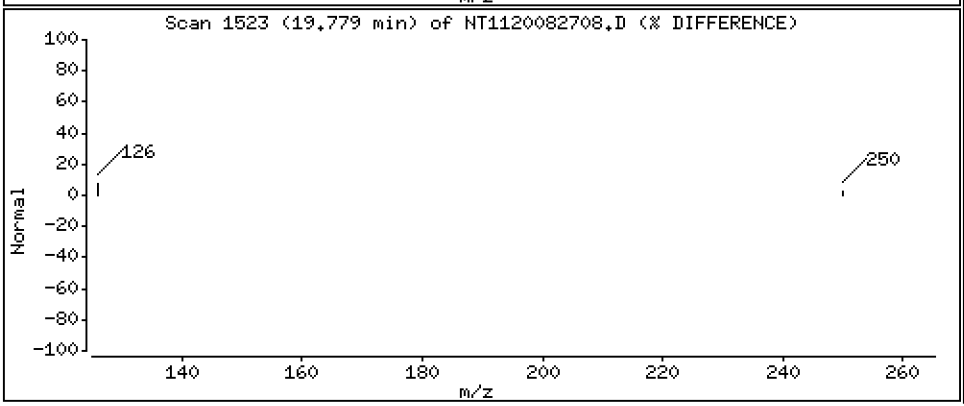












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

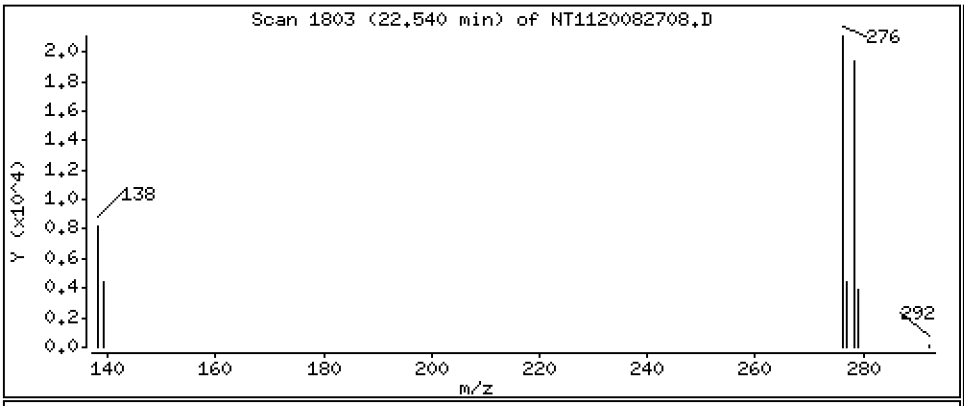
Operator: VTS

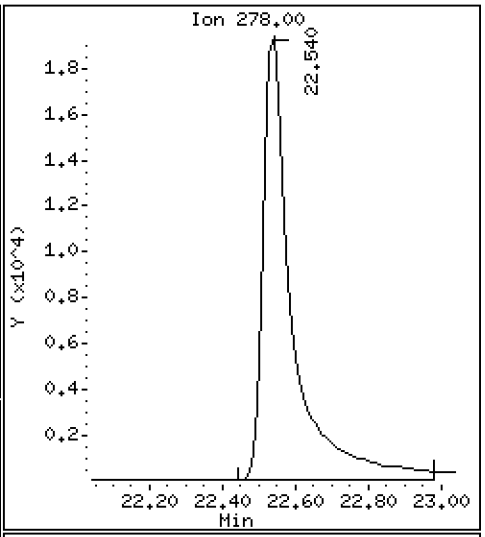
Column phase: Rxi-17Sil MS

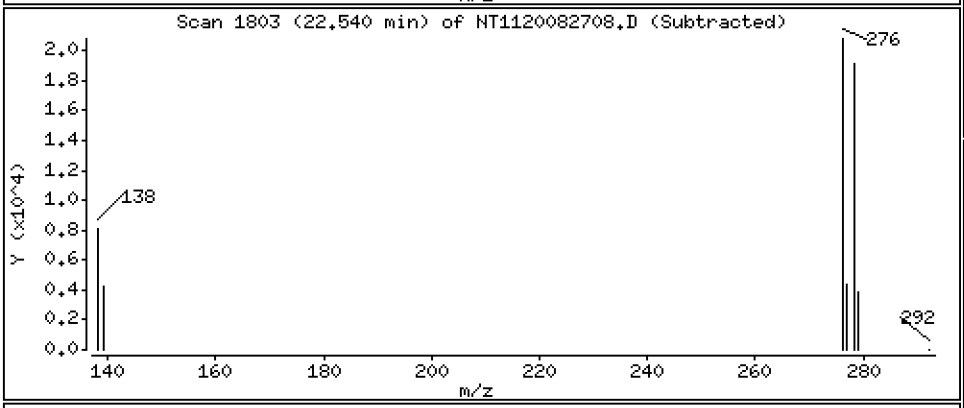
Column diameter: 0.25

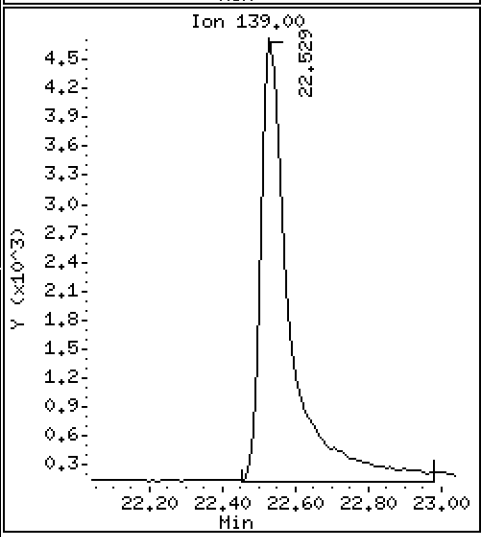
39 Dibenzo(a,h)anthracene

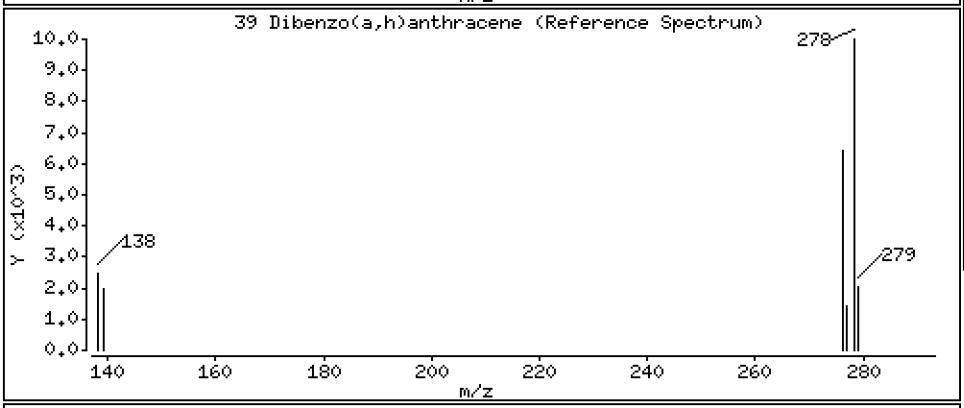
Concentration: 192 ng/mL

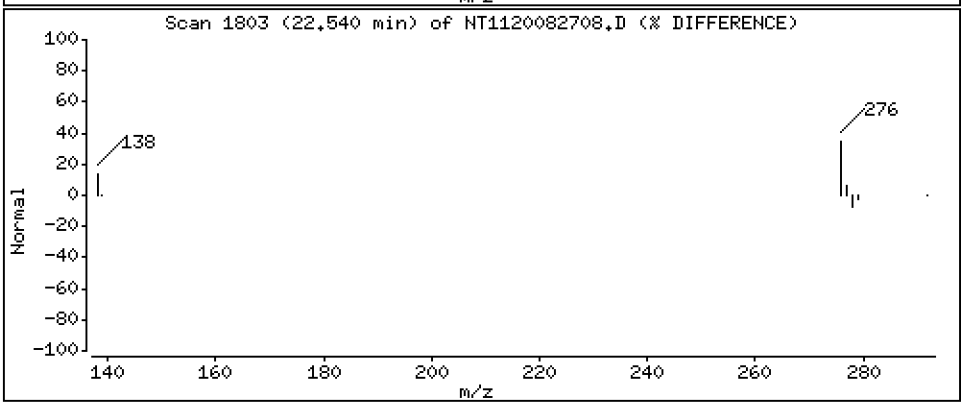












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

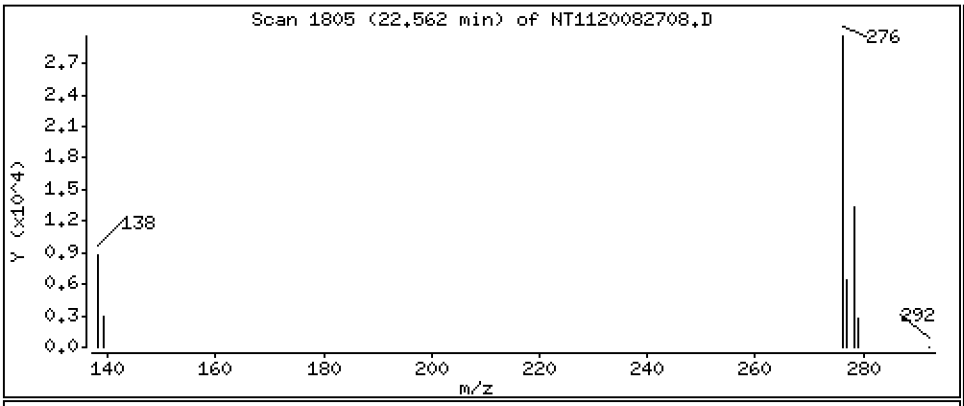
Operator: VTS

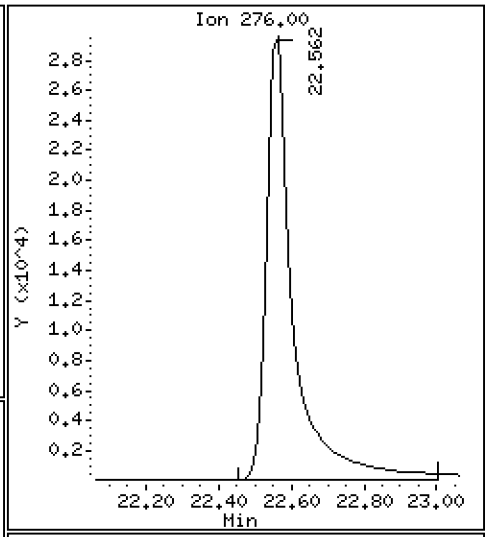
Column phase: Rxi-17Sil MS

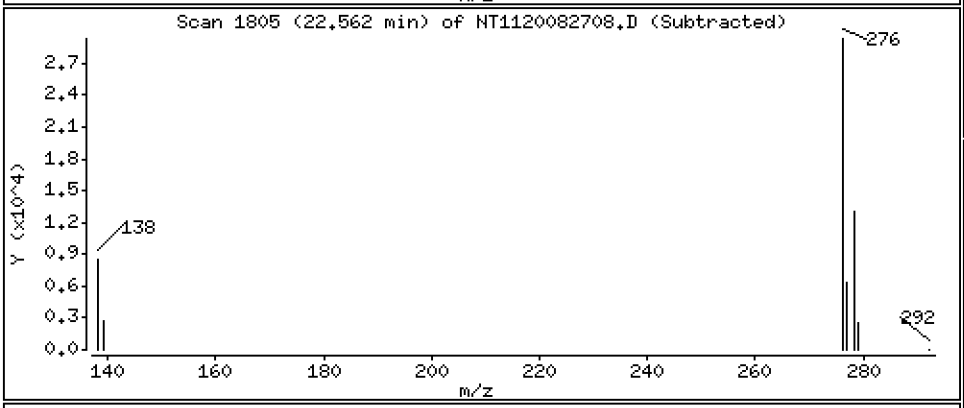
Column diameter: 0.25

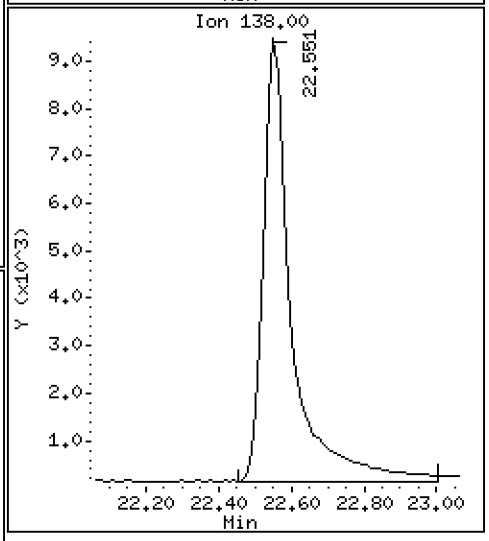
40 Indeno(1,2,3-cd)pyrene

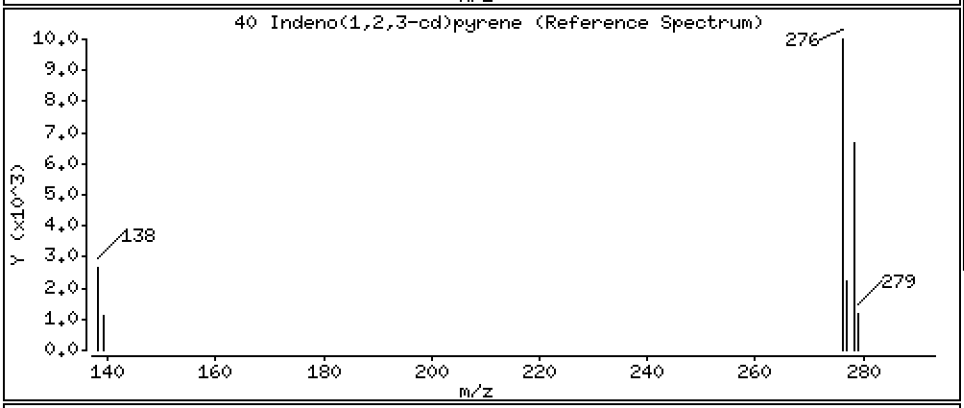
Concentration: 227 ng/mL

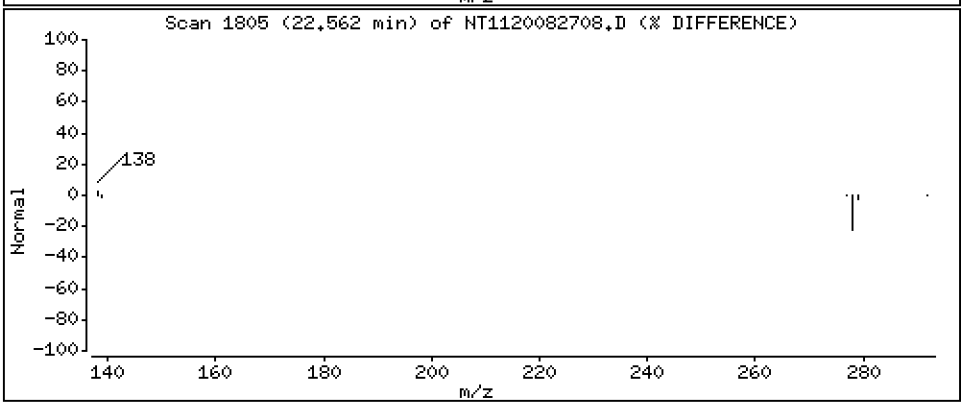












Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D

Date : 27-AUG-2020 15:38

Client ID:

Instrument: nt11.i

Sample Info: SIH0304-SCV1

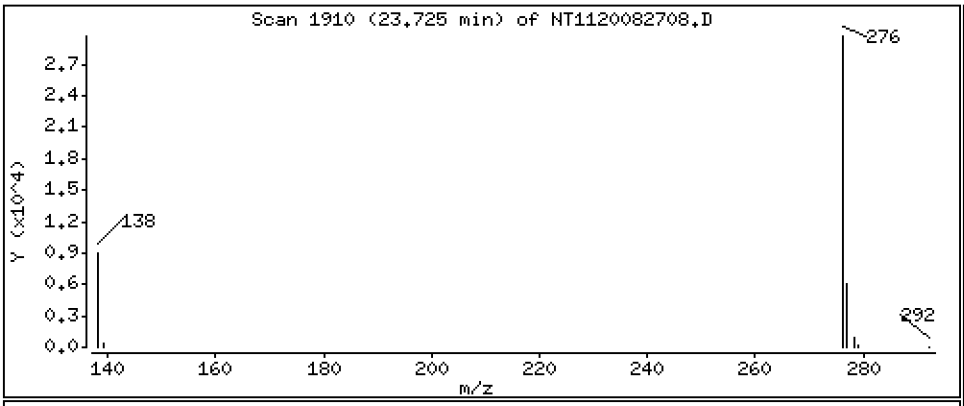
Operator: VTS

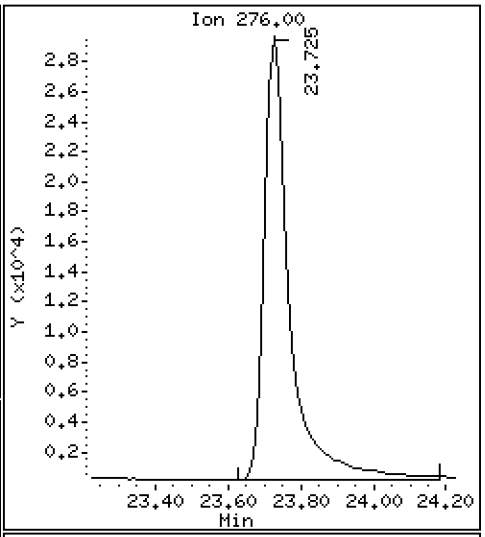
Column phase: Rxi-17Sil MS

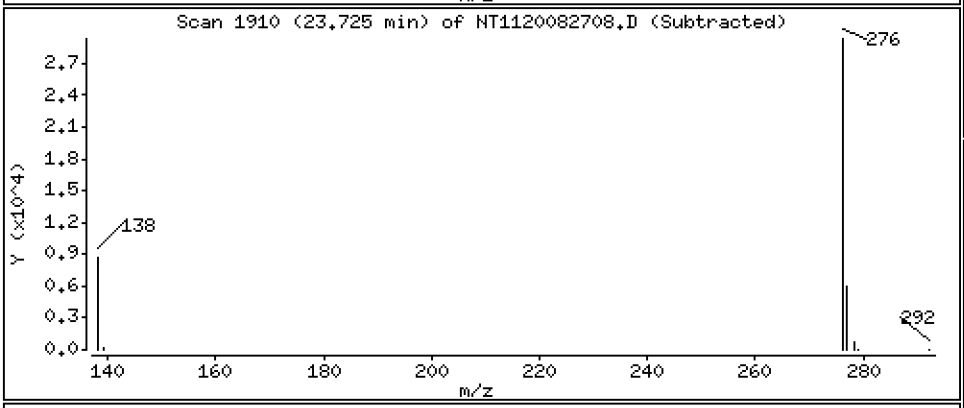
Column diameter: 0.25

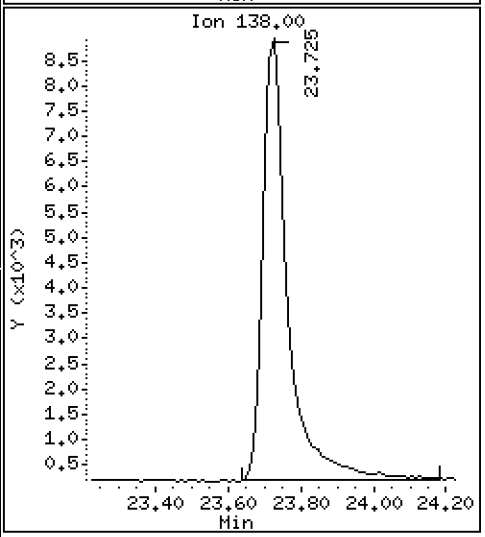
41 Benzo(g,h,i)perylene

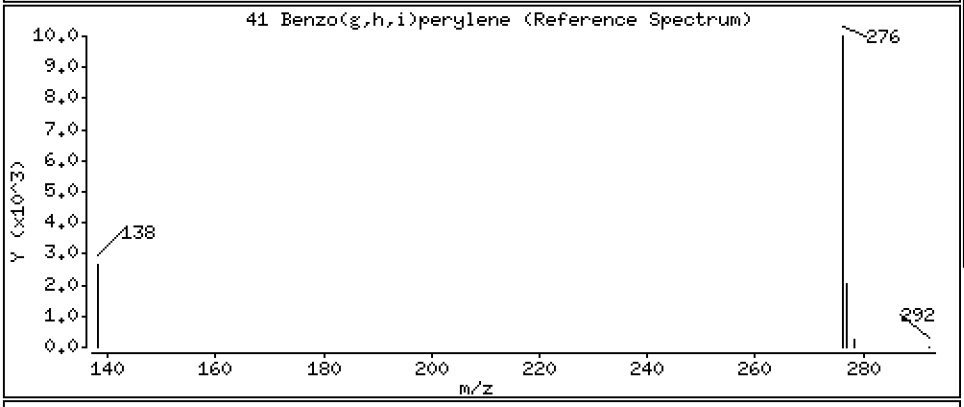
Concentration: 214 ng/mL

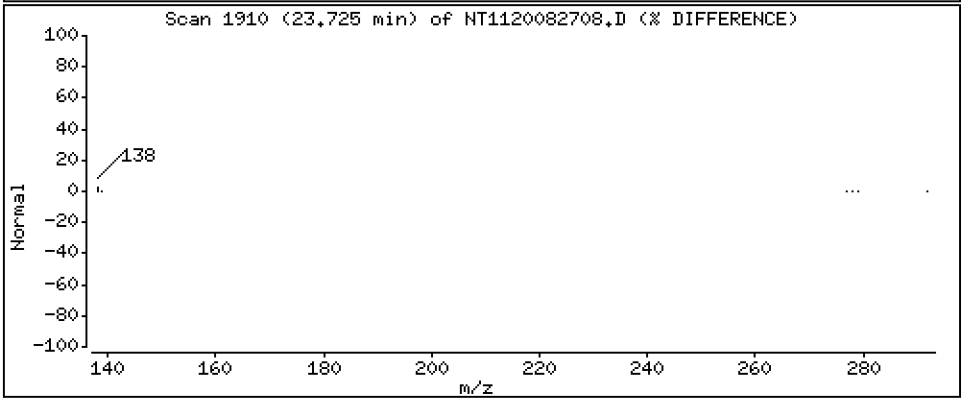












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Inj Date : 27-AUG-2020 15:38 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	6.804	6.804	(1.000)	202035	200.000	
	2 Naphthalene	128	6.840	6.840	(1.005)	263329	224.480	224
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	Compound Not Detected.					
	6 1-Methylnaphthalene	142	Compound Not Detected.					
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	9.653	9.653	(0.984)	241360	233.261	233
*	11 Acenaphthene-d10	164	9.807	9.807	(1.000)	90189	200.000	
	12 Acenaphthene	153	9.870	9.870	(1.006)	151880	221.934	222
	13 Dibenzofuran	168	Compound Not Detected.					
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
	16 Fluorene	166	10.694	10.694	(1.090)	164299	233.486	233
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	12.482	12.482	(1.000)	142829	200.000	
	19 Phenanthrene	178	12.513	12.524	(1.003)	217246	232.514	233
	21 Anthracene	178	12.576	12.576	(1.008)	207807	222.597	223
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	Compound Not Detected.					
	25 Fluoranthene	202	14.607	14.607	(1.170)	220035	236.211	236
	26 Pyrene	202	15.107	15.107	(1.210)	224689	235.115	235
	27 Benzo(a)anthracene	228	17.123	17.122	(0.994)	170476	223.013	223
*	28 Chrysene-d12	240	17.222	17.214	(1.000)	104063	200.000	
	29 Chrysene	228	17.264	17.264	(1.002)	185336	215.323	215
	30 Benzo(b)fluoranthene	252	18.962	18.962	(0.949)	137886	212.389	212
	31 Benzo(k)fluoranthene	252	19.001	19.001	(0.951)	222044	260.291	260
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	19.779	19.779	(0.990)	144487	213.091	213
*	36 Perylene-d12	264	19.981	19.981	(1.000)	119273	200.000	
	37 Perylene	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
$ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
39 Dibenzo(a,h)anthracene	278	22.540	22.540	(1.128)	107076	191.902	192
40 Indeno(1,2,3-cd)pyrene	276	22.562	22.562	(1.129)	149356	226.827	227
41 Benzo(g,h,i)perylene	276	23.725	23.725	(1.187)	141191	214.457	214

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082708.D
Lab Smp Id: SIH0304-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	202035	-6.18
11 Acenaphthene-d10	102217	51109	204434	90189	-11.77
18 Phenanthrene-d10	170387	85194	340774	142829	-16.17
28 Chrysene-d12	116138	58069	232276	104063	-10.40
36 Perylene-d12	139038	69519	278076	119273	-14.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082708.D

Lab ID: SIH0304-SCV1
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 15:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20200827.b\NT1120082709.D

Date : 27-AUG-2020 16:09

Client ID:

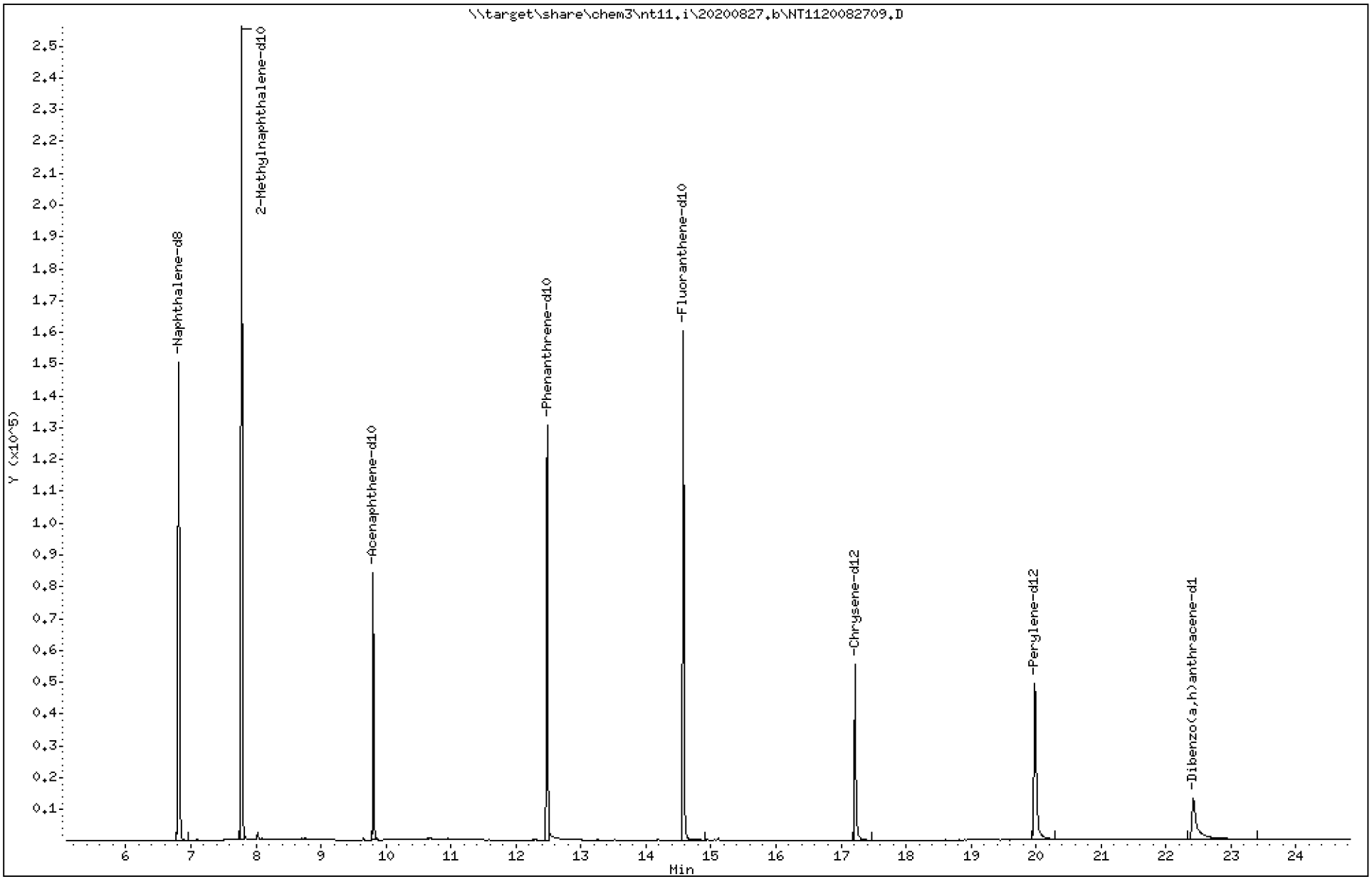
Instrument: nt11.i

Sample Info: SIH0304-ICB1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20200827.b\NT1120082709.D
Lab Smp Id: SIH0304-ICB1
Inj Date : 27-AUG-2020 16:09 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SIH0304-ICB1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Meth Date : 28-Aug-2020 07:11 van Quant Type: ISTD
Cal Date : 27-AUG-2020 13:38 Cal File: NT1120082704.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1	Naphthalene-d8	136	6.804	6.804	(1.000)	216694	200.000	
	2	Naphthalene	128	Compound Not Detected.					
	3	Benzo(b)thiophene	134	Compound Not Detected.					
$	4	2-Methylnaphthalene-d10	152	7.780	7.780	(1.144)	189652	217.663	218
	5	2-Methylnaphthalene	142	Compound Not Detected.					
	6	1-Methylnaphthalene	142	Compound Not Detected.					
	7	2-Chloronaphthalene	162	Compound Not Detected.					
	8	Biphenyl	154	Compound Not Detected.					
	9	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10	Acenaphthylene	152	Compound Not Detected.					
*	11	Acenaphthene-d10	164	9.807	9.807	(1.000)	94656	200.000	
	12	Acenaphthene	153	Compound Not Detected.					
	13	Dibenzofuran	168	Compound Not Detected.					
	14	2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
	16	Fluorene	166	Compound Not Detected.					
	17	Dibenzothiophene	184	Compound Not Detected.					
*	18	Phenanthrene-d10	188	12.482	12.482	(1.000)	145070	200.000	
	19	Phenanthrene	178	Compound Not Detected.					
	21	Anthracene	178	Compound Not Detected.					
	22	Carbazole	167	Compound Not Detected.					
	23	1-Methylphenanthrene	192	Compound Not Detected.					
$	24	Fluoranthene-d10	212	14.578	14.578	(1.168)	176038	231.454	231
	25	Fluoranthene	202	Compound Not Detected.					
	26	Pyrene	202	Compound Not Detected.					
	27	Benzo(a)anthracene	228	Compound Not Detected.					
*	28	Chrysene-d12	240	17.222	17.214	(1.000)	97049	200.000	
	29	Chrysene	228	Compound Not Detected.					
	30	Benzo(b)fluoranthene	252	Compound Not Detected.					
	31	Benzo(k)fluoranthene	252	Compound Not Detected.					
	32	Benzo(j)fluoranthene	252	Compound Not Detected.					
	34	Benzo(e)pyrene	252	Compound Not Detected.					
	35	Benzo(a)pyrene	252	Compound Not Detected.					
*	36	Perylene-d12	264	19.981	19.981	(1.000)	107633	200.000	
	37	Perylene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
$	38 Dibenzo(a,h)anthracene-d14	292	22.418	22.418	(1.122)	74753	178.300	178
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1120082709.D
Lab Smp Id: SIH0304-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20200827.b\lowsim.m
Misc Info:

Calibration Date: 27-AUG-2020
Calibration Time: 12:35
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	215332	107666	430664	216694	0.63
11 Acenaphthene-d10	102217	51109	204434	94656	-7.40
18 Phenanthrene-d10	170387	85194	340774	145070	-14.86
28 Chrysene-d12	116138	58069	232276	97049	-16.44
36 Perylene-d12	139038	69519	278076	107633	-22.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.81	6.31	7.31	6.80	-0.13
11 Acenaphthene-d10	9.81	9.31	10.31	9.81	-0.00
18 Phenanthrene-d10	12.48	11.98	12.98	12.48	-0.00
28 Chrysene-d12	17.21	16.71	17.71	17.22	0.05
36 Perylene-d12	19.98	19.48	20.48	19.98	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1120082709.D

Lab ID: SIH0304-ICB1
nt11.i, 20200827.b\lowsim.m,   27-AUG-2020 16:09

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1120082704.D

On Column LOD for nt11.i, 20200827.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		**RRF**		**RRF**		**RRF**		**RRF**		**RRF**
trans-Decalin	0.1	0.1527458	0.25	0.1508311	0.5	0.1603419	1	0.1418652	2.5	0.1624275	5	0.1367075
cis-Decalin	0.1	9.882306E-02	0.25	9.514728E-02	0.5	0.1235441	1	9.852396E-02	2.5	0.115741	5	9.344628E-02
Naphthalene	0.1	1.129158	0.25	1.110678	0.5	1.338165	1	1.13126	2.5	1.312073	5	1.081266
1-Methylnaphthalene	0.1	0.5540106	0.25	0.565741	0.5	0.673854	1	0.585315	2.5	0.6790437	5	0.5412482
2-Methylnaphthalene	0.1	0.579087	0.25	0.59784	0.5	0.6976312	1	0.6177659	2.5	0.7228723	5	0.5774304
Biphenyl	0.1	0.8689059	0.25	0.8348537	0.5	1.032126	1	0.8740036	2.5	1.017332	5	0.8150594
2,6-Dimethylnaphthalene	0.1	0.5632025	0.25	0.5596817	0.5	0.7042282	1	0.6012667	2.5	0.7257359	5	0.5745002
Acenaphthylene	0.1	0.8011742	0.25	0.8448438	0.5	1.016647	1	0.9153076	2.5	1.195812	5	0.9811533
Acenaphthene	0.1	0.5348645	0.25	0.5702001	0.5	0.679346	1	0.6158454	2.5	0.744017	5	0.6014947
Dibenzofuran	0.1	0.8655595	0.25	0.8787451	0.5	1.034455	1	0.9195884	2.5	1.114038	5	0.8845477
2,3,5-Trimethylnaphthalene	0.1	0.4625156	0.25	0.4682477	0.5	0.5775969	1	0.5170029	2.5	0.6707346	5	0.5356526
Fluorene	0.1	0.6315272	0.25	0.6218754	0.5	0.74264	1	0.662359	2.5	0.8098883	5	0.658176
Benzo(b)thiophene	0.1	0.8811476	0.25	0.8740841	0.5	1.065209	1	0.9006302	2.5	1.059069	5	0.8655137
Phenanthrene	0.1	1.231526	0.25	1.187681	0.5	1.172277	1	1.24267	2.5	1.229097	5	1.18905
Anthracene	0.1	0.9928926	0.25	1.085149	0.5	1.095513	1	1.127942	2.5	1.157057	5	1.152161
Carbazole	0.1	0.6069552	0.25	0.7045514	0.5	0.719393	1	0.8326313	2.5	0.9575968	5	0.9628192
1-Methylphenanthrene	0.1	0.6104537	0.25	0.6528313	0.5	0.7035586	1	0.7427383	2.5	0.796288	5	0.8088276
Fluoranthene	0.1	0.9786531	0.25	0.9371755	0.5	0.9375246	1	1.075681	2.5	1.150061	5	1.17396
Dibenzothiophene	0.1	0.7546642	0.25	0.7930753	0.5	0.925795	1	0.8302316	2.5	1.04606	5	0.8471042
Pyrene	0.1	0.9630021	0.25	0.966914	0.5	1.000393	1	1.11307	2.5	1.182144	5	1.241269
Benzo(a)anthracene	0.1	0.562294	0.25	0.6778681	0.5	0.7259448	1	0.8109875	2.5	0.9627567	5	0.9492783
Chrysene	0.1	0.7943908	0.25	0.8615273	0.5	0.9381651	1	0.9212196	2.5	0.9857692	5	1.000426
Benzo(b)fluoranthene	0.1	0.5308324	0.25	0.6087004	0.5	0.6191073	1	0.695794	2.5	0.9059779	5	0.881615
Benzo(j)fluoranthene	0.1	0.8531192	0.25	0.7996164	0.5	0.8759881	1	1.047484	2.5	1.029944	5	1.090356
Benzo(k)fluoranthene	0.1	0.6872416	0.25	0.773181	0.5	0.8150068	1	0.8807561	2.5	1.051061	5	1.088732
Benzo(e)pyrene	0.1	0.7498052	0.25	0.7755446	0.5	0.7781863	1	0.8271542	2.5	0.8997073	5	0.9313504
Benzo(a)pyrene	0.1	0.5480314	0.25	0.5557879	0.5	0.6654072	1	0.7231544	2.5	0.8813632	5	0.9020022
Indeno(1,2,3-cd)pyrene	0.1	0.5437167	0.25	0.6400912	0.5	0.6587507	1	0.748201	2.5	0.9270778	5	0.952037

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		**RRF**		**RRF**		**RRF**		**RRF**		**RRF**
Dibenzo(a,h)anthracene	0.1	0.4046863	0.25	0.4750094	0.5	0.5279621	1	0.5896445	2.5	0.8345512	5	0.8179153
Benzo(g,h,i)perylene	0.1	0.6004075	0.25	0.8167425	0.5	0.7211619	1	0.7012883	2.5	0.8269543	5	0.8301412
Perylene	0.1	0.7091748	0.25	0.7359847	0.5	0.707023	1	0.7637468	2.5	0.8994571	5	0.9033379
Benzo(b)naphtho(2,1-d)thiophene	0.1	0.8293234	0.25	0.9264172	0.5	1.051839	1	1.24978	2.5	1.106562	5	1.175099
Naphthalene-d8	0.1	1.114502	0.25	1.071479	0.5	1.29126	1	1.123919	2.5	1.305963	5	1.059941
Acenaphthene-d10	0.1	0.5288919	0.25	0.5155261	0.5	0.6123474	1	0.5423731	2.5	0.6666629	5	0.5301955
Phenanthrene-d10	0.1	1.116935	0.25	1.022565	0.5	1.0544	1	1.110704	2.5	1.096999	5	1.085478
Chrysene-d12	0.1	0.5576796	0.25	0.6403815	0.5	0.7026469	1	0.7612398	2.5	0.7932334	5	0.8089519
Perylene-d12	0.1	0.5015881	0.25	0.5811868	0.5	0.629992	1	0.6787897	2.5	0.7772829	5	0.8084413

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
trans-Decalin	10	0.1379559										
cis-Decalin	10	9.472697E-02										
Naphthalene	10	1.115481										
1-Methylnaphthalene	10	0.5560783										
2-Methylnaphthalene	10	0.5928986										
Biphenyl	10	0.8341153										
2,6-Dimethylnaphthalene	10	0.5902394										
Acenaphthylene	10	1.041621										
Acenaphthene	10	0.6222852										
Dibenzofuran	10	0.9218858										
2,3,5-Trimethylnaphthalene	10	0.5585615										
Fluorene	10	0.6837465										
Benzo(b)thiophene	10	0.8925578										
Phenanthrene	10	1.19395										
Anthracene	10	1.175137										
Carbazole	10	1.019265										
1-Methylphenanthrene	10	0.8135303										
Fluoranthene	10	1.248132										
Dibenzothiophene	10	0.8751902										
Pyrene	10	1.306408										
Benzo(a)anthracene	10	1.066691										
Chrysene	10	1.036908										
Benzo(b)fluoranthene	10	1.001889										
Benzo(j)fluoranthene	10	0.9631976										
Benzo(k)fluoranthene	10	1.198838										
Benzo(e)pyrene	10	1.001095										
Benzo(a)pyrene	10	0.9203169										
Indeno(1,2,3-cd)pyrene	10	1.051524										

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RRF		RRF		RRF		RRF		RRF		RRF
Dibenzo(a,h)anthracene	10	0.9350092										
Benzo(g,h,i)perylene	10	0.8675536										
Perylene	10	0.9764414										
Benzo(b)naphtho(2,1-d)thiophene	10	1.235939										
Naphthalene-d8	10	1.112424										
Acenaphthene-d10	10	0.5490843										
Phenanthrene-d10	10	1.078409										
Chrysene-d12	10	0.8228924										
Perylene-d12	10	0.8520311										

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
trans-Decalin	0.1489821	7.0			RSD (15)	
cis-Decalin	0.1028504	11.5			RSD (15)	
Naphthalene	1.174012	8.9			RSD (15)	
1-Methylnaphthalene	0.593613	9.8			RSD (15)	
2-Methylnaphthalene	0.6265036	9.4			RSD (15)	
Biphenyl	0.896628	10.0			RSD (15)	
2,6-Dimethylnaphthalene	0.6169792	11.1			RSD (15)	
Acenaphthylene	0.970937	13.7			RSD (15)	
Acenaphthene	0.6240076	11.1			RSD (15)	
Dibenzofuran	0.9455456	9.9			RSD (15)	
2,3,5-Trimethylnaphthalene	0.5414731	13.2			RSD (15)	
Fluorene	0.6871732	9.8			RSD (15)	
Benzo(b)thiophene	0.9340302	9.5			RSD (15)	
Phenanthrene	1.206607	2.3			RSD (15)	
Anthracene	1.112265	5.6			RSD (15)	
Carbazole	0.8290303	18.9		0.9996	QCOD (0.99)	
1-Methylphenanthrene	0.732604	11.0			RSD (15)	
Fluoranthene	1.071598	11.6			RSD (15)	
Dibenzothiophene	0.8674458	11.1			RSD (15)	
Pyrene	1.110457	12.5			RSD (15)	
Benzo(a)anthracene	0.8222601	21.8		0.9995	QCOD (0.99)	
Chrysene	0.934058	9.0			RSD (15)	
Benzo(b)fluoranthene	0.7491309	24.0		0.9991	QCOD (0.99)	
Benzo(j)fluoranthene	0.9513865	11.6			RSD (15)	
Benzo(k)fluoranthene	0.9278309	20.2		0.9996	QCOD (0.99)	
Benzo(e)pyrene	0.8518347	11.0			RSD (15)	
Benzo(a)pyrene	0.7422947	21.7		0.9993	QCOD (0.99)	
Indeno(1,2,3-cd)pyrene	0.7887712	24.0		0.9994	QCOD (0.99)	
Dibenzo(a,h)anthracene	0.6549683	31.3		0.9986	QCOD (0.99)	
Benzo(g,h,i)perylene	0.7663214	12.4			RSD (15)	
Perylene	0.8135951	13.5			RSD (15)	

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00001	Instrument:	NT14
Calibration Date:	04/30/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Benzo(b)naphtho(2,1-d)thiophene	1.082137	14.6			RSD (15)	
Naphthalene-d8	1.154213	8.8			RSD (15)	
Acenaphthene-d10	0.563583	9.8			RSD (15)	
Phenanthrene-d10	1.080784	3.1			RSD (15)	
Chrysene-d12	0.7267179	13.6			RSD (15)	
Perylene-d12	0.6899017	18.6		0.9997	QCOD (0.99)	

Printed: 5/1/2021 9:45:57AM

ANALYSIS SEQUENCE

SJD0305

Instrument: NT14 Element Column ID: J008815
Calibration ID: EE00001 Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0305-TUN1	MS Tune	QC		1	I007631		
SJD0305-CAL5	PAH 2.5	QC		2	J004700	J004384	
SJD0305-CAL7	PAH 10.0	QC		3	J004701	J004384	
SJD0305-CAL6	PAH 5.0	QC		4	J004702	J004384	
SJD0305-CAL2	PAH 0.25	QC		5	J004705	J004384	
SJD0305-CAL4	PAH 1.0	QC		6	J004703	J004384	
SJD0305-CAL3	PAH 0.5	QC		7	J004704	J004384	
SJD0305-CAL1	PAH 0.1	QC		8	J004706	J004384	
SJD0305-SCV1	Secondary Cal Check	QC		9	J004707	J004384	
SJD0305-ICB1	Initial Cal Blank	QC		10	J004708	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

	Time	Filename	LabID	ClientId	DF						
1	0742	NT1421043001.D	SJD0305-TUN1		1	|NO ISTDS FOUND||					
2	0756	NT1421043002.D	SJD0305-CAL5		1	|18.78	420456||22.22	381033||33.05	370998|		
3	0843	NT1421043003.D	SJD0305-CAL7		1	|18.78	463680||22.22	358366||33.05	363264|		
4	0931	NT1421043004.D	SJD0305-CAL1		1	|18.78	393878||22.22	335095||33.05	358059|		
5	1019	NT1421043005.D	SJD0305-CAL6		1	|18.78	459220||22.22	341294||33.05	348573|		
6	1107	NT1421043006.D	SJD0305-CAL2		1	|18.77	514907||22.22	378499||33.05	385845|		
7	1155	NT1421043007.D	SJD0305-CAL4		1	|18.78	445719||22.22	328813||33.05	341443|		
8	1243	NT1421043008.D	SJD0305-CAL3		1	|18.78	369261||22.22	315516||33.05	324493|		
9	1332	NT1421043009.D	SJD0305-CAL1		1	|18.78	472157||22.22	325856||33.05	333740|		
10	1441	NT1421043010.D	SJD0305-SCV1		1	|18.78	351020||22.23	309177||33.05	328565|		
11	1529	NT1421043011.D	SJD0305-ICB1		1	|18.77	376278||22.23	322067||33.05	328767|		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Instrument: nt14.i Date: 30-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0742	NT1421043001.D	SJD0305-TUN1	1	NO MANUAL INTEGRATION
0756	NT1421043002.D	SJD0305-CAL5	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
0843	NT1421043003.D	SJD0305-CAL7	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
0931	NT1421043004.D	SJD0305-CAL1	1	Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthene
1019	NT1421043005.D	SJD0305-CAL6	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1107	NT1421043006.D	SJD0305-CAL2	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzo(j)fluoranthene,
1155	NT1421043007.D	SJD0305-CAL4	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1243	NT1421043008.D	SJD0305-CAL3	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1332	NT1421043009.D	SJD0305-CAL1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1441	NT1421043010.D	SJD0305-SCV1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(Chrysene-d12, Perylene-d12,
1529	NT1421043011.D	SJD0305-ICB1	1	Chrysene-d12, Perylene-d12,

Security Status Report

Date: 01-May-2021 09:39

NT1421043001.D	Data Locked	van, 01-May-2021 09:39
NT1421043002.D	Data Locked	van, 01-May-2021 09:39
NT1421043003.D	Data Locked	van, 01-May-2021 09:39
NT1421043004.D	Data Locked	van, 01-May-2021 09:39
NT1421043005.D	Data Locked	van, 01-May-2021 09:39
NT1421043006.D	Data Locked	van, 01-May-2021 09:39
NT1421043007.D	Data Locked	van, 01-May-2021 09:39
NT1421043008.D	Data Locked	van, 01-May-2021 09:39
NT1421043009.D	Data Locked	van, 01-May-2021 09:39
NT1421043010.D	Data Locked	van, 01-May-2021 09:39
NT1421043011.D	Data Locked	van, 01-May-2021 09:39

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
End Cal Date : 30-APR-2021 13:32
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Last Edit : 01-May-2021 07:34 van

Calibration File Names:
Level 1: \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D
Level 2: \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
Level 3: \\target\share\chem3\nt14.i\20210430.b\NT1421043008.D
Level 4: \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
Level 5: \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D
Level 6: \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
Level 7: \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D

Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
1 trans-Decalin	0.15275	0.15083	0.16034	0.14187	0.16243	0.13671						
	0.13796						AVRG		0.14898		6.98791	
2 cis-Decalin	0.09882	0.09515	0.12354	0.09852	0.11574	0.09345						
	0.09473						AVRG		0.10285		11.52544	
3 C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
4 C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Quant Method : ISTD
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Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
5 C3-Decalin	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
247 C4-Decalin	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
7 Naphthalene	1.12916 / 1.11548	1.11068	1.33816	1.13126	1.31207	1.08127	AVRG		1.17401		8.92579	
8 C1-Naphthalenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
9 C2-Naphthalenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
10 C3-Naphthalenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
11 C4-Naphthalenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2	
12 Benzo(b)thiophene	0.88115	0.87408	1.06521	0.90063	1.05907	0.86551							
	0.89256							AVRG		0.93403		9.45177	
13 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
14 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
15 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++							
	+++++							AVRG		0.000e+000		0.000e+000	<-
16 2-Methylnaphthalene	0.57909	0.59784	0.69763	0.61777	0.72287	0.57743							
	0.59290							AVRG		0.62650		9.44971	
17 1-methylnaphthalene	0.55401	0.56574	0.67385	0.58531	0.67904	0.54125							
	0.55608							AVRG		0.59361		9.79919	
18 Biphenyl	0.86891	0.83485	1.03213	0.87400	1.01733	0.81506							
	0.83412							AVRG		0.89663		10.03625	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
19 2,6-Dimethylnaphthalene	0.56320	0.55968	0.70423	0.60127	0.72574	0.57450						
	0.59024						AVRG		0.61698		11.14739	
20 Acenaphthylene	0.80117	0.84484	1.01665	0.91531	1.19581	0.98115						
	1.04162						AVRG		0.97094		13.66182	
22 Acenaphthene	0.53486	0.57020	0.67935	0.61585	0.74402	0.60149						
	0.62229						AVRG		0.62401		11.11870	
23 Dibenzofuran	0.86556	0.87875	1.03446	0.91959	1.11404	0.88455						
	0.92189						AVRG		0.94555		9.85595	
24 1,6,7-Trimethylnaphthalene	0.46252	0.46825	0.57760	0.51700	0.67073	0.53565						
	0.55856						AVRG		0.54147		13.17474	
26 Fluorene	0.63153	0.62188	0.74264	0.66236	0.80989	0.65818						
	0.68375						AVRG		0.68717		9.75555	
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
28 C2-Fluorenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
29 C3-Fluorenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
30 Dibenzothiophene	0.75466 / 0.87519	0.79308	0.92580	0.83023	1.04606	0.84710	AVRG		0.86745		11.07909	
31 C1-Dibenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
32 C2-Dibenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
33 C3-Dibenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
34 C4-Dibenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
36 Phenanthrene	1.23153	1.18768	1.17228	1.24267	1.22910	1.18905					
	1.19395						AVRG		1.20661		2.25259
37 Anthracene	0.99289	1.08515	1.09551	1.12794	1.15706	1.15216					
	1.17514						AVRG		1.11226		5.57401
38 C1-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
39 C2-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
40 C3-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
41 C4-Phenanthrenes/Anthracenes	+++++	+++++	+++++	+++++	+++++	+++++					
	+++++						AVRG		0.000e+000		0.000e+000 <-
42 Carbazole	9889	33334	56745	136890	456095	821511					
	1826349						QUAD	0.000e+000	1.09394	-0.02222	0.99980

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
43 1-Methylphenanthrene	0.61045	0.65283	0.70356	0.74274	0.79629	0.80883						
	0.81353						AVRG		0.73260		10.95480	
44 Fluoranthene	0.97865	0.93718	0.93752	1.07568	1.15006	1.17396						
	1.24813						AVRG		1.07160		11.58675	
45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
46 Pyrene	0.96300	0.96691	1.00039	1.11307	1.18214	1.24127						
	1.30641						AVRG		1.11046		12.47356	
47 Retene	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
48 C1-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
49 C2-Fluoranthenes/Pyrenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
50 C3-Fluoranthenes/Pyrenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
249 C4-Fluoranthenes/Pyrenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
51 Naphthobenzothiophene	0.82932 / 1.23594	0.92642	1.05184	1.24978	1.10656	1.17510	AVRG		1.08214		14.61512	
52 C1-Naphthobenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
53 C2-Naphthobenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
54 C3-Naphthobenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
248 C4-Naphthobenzothiophenes	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
55 Benzo(a)anthracene	9383 / 1937453	32694	58891	138453	446476	827232	QUAD	0.000e+000	1.13118	-0.03627	0.99965	
57 Chrysene	0.79439 / 1.03691	0.86153	0.93817	0.92122	0.98577	1.00043	AVRG		0.93406		9.02168	
58 C1-Benzo(a)anthracenes/Chryse	##### / #####	#####	#####	#####	#####	#####	AVRG		0.000e+000		0.000e+000	<-
59 C2-Benzo(a)anthracenes/Chryse	##### / #####	#####	#####	#####	#####	#####	AVRG		0.000e+000		0.000e+000	<-
60 C3-Benzo(a)anthracenes/Chryse	##### / #####	#####	#####	#####	#####	#####	AVRG		0.000e+000		0.000e+000	<-
61 C4-Benzo(a)anthracenes/Chryse	##### / #####	#####	#####	#####	#####	#####	AVRG		0.000e+000		0.000e+000	<-
62 Benzo(b)fluoranthene	8858 / 1819751	29358	50224	118787	420145	768268	QUAD	0.000e+000	1.22204	-0.04466	0.99931	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
293 Benzo(j)fluoranthene	0.85312	0.79962	0.87599	1.04748	1.02994	1.09036						
	0.96320						AVRG		0.95139		11.61242	
63 Benzo(k)fluoranthene	11468	37291	66116	150364	487427	948756						
	2177474						QUAD	0.000e+000	0.99968	-0.02771	0.99979	
64 Benzo(e)pyrene	0.74981	0.77554	0.77819	0.82715	0.89971	0.93135						
	1.00109						AVRG		0.85183		11.04961	
246 Total Benzofluoranthenes	32397	105389	173318	424060	1316043	2536622						
	5667360						QUAD	0.000e+000	1.10177	-0.00903	0.99983	
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
66 Benzo(a)pyrene	9145	26806	53980	123458	408730	786034						
	1671590						QUAD	0.000e+000	1.15794	-0.01584	0.99967	
68 Perylene	0.70917	0.73598	0.70702	0.76375	0.89946	0.90334						
	0.97644						AVRG		0.81360		13.53089	

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Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
	10.0000 Level 7											
69 Indeno(1,2,3-cd)pyrene	9073	30872	53440	127734	429930	829636						
	1909904						QUAD	0.000e+000	1.14317	-0.03668	0.99967	
70 Dibenzo(a,h)anthracene	6753	22910	42830	100665	387021	712758						
	1698276						QUAD	0.000e+000	1.32868	-0.05546	0.99909	
71 C1-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
72 C2-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
73 C3-Dibenzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-
74 Benzo(g,h,i)perylene	0.60041	0.81674	0.72116	0.70129	0.82695	0.83014						
	0.86755						AVRG		0.76632		12.41812	
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++						
	+++++						AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
254 n-Nonane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
262 n-Decane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
255 n-Undecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
256 n-Dodecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
257 n-Tridecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
258 n-Tetradecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
259 n-Pentadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
263 n-Hexadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
264 n-Heptadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
265 n-Octadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
266 Pristane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
288 n-Nonadecane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
289 Phytane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
267 n-Eicosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
268 n-Heneicosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
270 n-Docosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
271 n-Tricosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
272 n-Tetracosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
273 n-Pentacosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
274 n-Hexacosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
275 n-Heptacosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

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Last Edit : 01-May-2021 07:34 van

Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
276 n-Octacosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
291 n-Nonacosane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
278 n-Triacontain	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
279 n-Hentriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
280 n-Dotriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
281 n-Tritriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
282 n-Tetratriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
End Cal Date : 30-APR-2021 13:32
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Last Edit : 01-May-2021 07:34 van

Compound	0.1000000 Level 1 / 10.0000 Level 7	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2	
283 n-Pentatriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
284 n-Hexatriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
285 n-Heptatriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
286 n-Octatriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
292 n-Nonatriacontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
287 n-Tetracontane	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000	<-
$ 6 Naphthalene-d8	1.11450 / 1.11242	1.07148	1.29126	1.12392	1.30596	1.05994	AVRG		1.15421		8.79172	

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
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Quant Method : ISTD
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Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Last Edit : 01-May-2021 07:34 van

Compound	0.1000000 Level 1	0.2500000 Level 2	0.5000000 Level 3	1.0000 Level 4	2.5000 Level 5	5.0000 Level 6	10.0000 Level 7	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 21 Acenaphthene-d10	0.52889	0.51553	0.61235	0.54237	0.66666	0.53020						
	0.54908							AVRG		0.56358		9.79686
$ 35 Phenanthrene-d10	1.11694	1.02257	1.05440	1.11070	1.09700	1.08548						
	1.07841							AVRG		1.08078		3.06366
$ 56 Chrysene-d12	0.55768	0.64038	0.70265	0.76124	0.79323	0.80895						
	0.82289							AVRG		0.72672		13.55664
$ 67 Perylene-d12	8370	28031	51107	115884	360463	704502						
	1547561							QUAD	0.000e+000	1.31926	-0.03447	0.99984

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 30-APR-2021 07:56
End Cal Date : 30-APR-2021 13:32
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Last Edit : 01-May-2021 07:34 van

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07
FILENAME:	NT1421043002	NT1421043003	NT1421043005	NT1421043006	NT1421043007	NT1421043008	NT1421043009
INJ.DATE:	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021	30-APR-2021
INJ.TIME:	07:56	08:43	10:19	11:07	11:55	12:43	13:32

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
1 trans-Decalin	7.046	7.046	7.046	7.056	7.046	7.036	7.035	7.035	4.035-10.035	7.044	0.007
2 cis-Decalin	8.145	8.155	8.155	8.165	8.155	8.155	8.165	8.165	5.165-11.165	8.157	0.007
3 C1-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.800	5.800-11.800	+++++	+++++
4 C2-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.200	6.200-12.200	+++++	+++++
5 C3-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.000	7.000-13.000	+++++	+++++
247 C4-Decalin	+++++	+++++	+++++	+++++	+++++	+++++	+++++	10.100	7.100-13.100	+++++	+++++
$ 6 Naphthalene-d8	11.776	11.776	11.776	11.776	11.776	11.776	11.776	11.776	8.776-14.776	11.776	0.000
7 Naphthalene	11.837	11.847	11.847	11.837	11.837	11.847	11.847	11.847	8.847-14.847	11.842	0.005
8 C1-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.000	11.000-17.000	+++++	+++++
9 C2-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.000	13.000-19.000	+++++	+++++
10 C3-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.000	15.000-21.000	+++++	+++++
11 C4-Naphthalenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.500	15.500-21.500	+++++	+++++
12 Benzo(b)thiophene	12.296	12.296	12.296	12.296	12.296	12.296	12.296	12.296	9.296-15.296	12.296	0.000
13 C1-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.200	11.200-17.200	+++++	+++++
14 C2-Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.800	12.800-18.800	+++++	+++++
15 C3_Benzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.200	14.200-20.200	+++++	+++++
16 2-Methylnaphthalene	13.680	13.681	13.680	13.681	13.681	13.680	13.680	13.680	10.680-16.680	13.680	0.000

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
17 1-methylnaphthalene	14.131	14.131	14.131	14.131	14.131	14.131	14.131	14.131	11.131-17.131	14.131	0.000
18 Biphenyl	15.318	15.318	15.318	15.318	15.318	15.318	15.318	15.318	12.318-18.318	15.318	0.000
19 2,6-Dimethylnaphthalen	15.395	15.395	15.395	15.395	15.395	15.395	15.395	15.395	12.395-18.395	15.395	0.000
20 Acenaphthylene	16.955	16.967	16.966	16.956	16.956	16.955	16.955	16.955	13.955-19.955	16.959	0.005
$ 21 Acenaphthene-d10	17.241	17.252	17.252	17.241	17.241	17.241	17.241	17.241	14.241-20.241	17.244	0.005
22 Acenaphthene	17.362	17.362	17.362	17.362	17.362	17.362	17.362	17.362	14.362-20.362	17.362	0.000
23 Dibenzofuran	17.736	17.736	17.736	17.736	17.736	17.736	17.736	17.736	14.736-20.736	17.736	0.000
24 1,6,7-Trimethylnaphtha	17.966	17.967	17.966	17.967	17.967	17.966	17.966	17.966	14.966-20.966	17.966	0.000
* 25 Fluorene-d10	18.782	18.782	18.782	18.771	18.782	18.782	18.782	18.782	15.782-21.782	18.780	0.004
26 Fluorene	18.884	18.884	18.884	18.884	18.884	18.884	18.884	18.884	15.884-21.884	18.884	0.000
27 C1-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.000	18.000-24.000	+++++	+++++
28 C2-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.200	18.200-24.200	+++++	+++++
29 C3-Fluorenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.000	20.000-26.000	+++++	+++++
30 Dibenzothiophene	21.795	21.795	21.795	21.795	21.795	21.795	21.795	21.795	18.795-24.795	21.795	0.000
31 C1-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.500	20.500-26.500	+++++	+++++
32 C2-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.500	21.500-27.500	+++++	+++++
33 C3-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.600	22.600-28.600	+++++	+++++
34 C4-Dibenzothiophenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
$ 35 Phenanthrene-d10	22.103	22.103	22.103	22.103	22.103	22.103	22.103	22.103	19.103-25.103	22.103	0.000
* 250 Anthracene-d10	22.224	22.224	22.224	22.224	22.224	22.224	22.224	22.224	19.224-25.224	22.224	0.000
36 Phenanthrene	22.191	22.191	22.191	22.180	22.180	22.191	22.191	22.191	19.191-25.191	22.188	0.005
37 Anthracene	22.290	22.290	22.290	22.290	22.290	22.290	22.290	22.290	19.290-25.290	22.290	0.000

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	38 C1-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.800	20.800-26.800	+++++	+++++
	39 C2-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.000	22.000-28.000	+++++	+++++
	40 C3-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.000	24.000-30.000	+++++	+++++
	41 C4-Phenanthrenes/Anthr	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.000	25.000-31.000	+++++	+++++
	42 Carbazole	23.565	23.565	23.565	23.565	23.565	23.565	23.565	23.565	20.565-26.565	23.565	0.000
	43 1-Methylphenanthrene	24.016	24.027	24.016	24.016	24.016	24.016	24.016	24.016	21.016-27.016	24.017	0.004
	44 Fluoranthene	25.995	25.995	25.995	25.995	25.995	25.995	25.995	25.995	22.995-28.995	25.995	0.000
	45 Pyrene-d10	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.628	15.628-21.628	+++++	+++++
	46 Pyrene	26.842	26.842	26.841	26.842	26.842	26.842	26.842	26.842	23.842-29.842	26.842	0.000
	47 Retene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.769	14.769-20.769	+++++	+++++
	48 C1-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.900	24.900-30.900	+++++	+++++
	49 C2-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.000	26.000-32.000	+++++	+++++
	50 C3-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.000	27.000-33.000	+++++	+++++
	249 C4-Fluoranthenes/Pyren	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
	51 Naphthobenzothiophene	29.385	29.385	29.385	29.385	29.385	29.385	29.385	29.385	26.385-32.385	29.385	0.000
	52 C1-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	32.500	29.500-35.500	+++++	+++++
	53 C2-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.500	30.500-36.500	+++++	+++++
	54 C3-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	35.000	32.000-38.000	+++++	+++++
	248 C4-Naphthobenzothiophe	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
	55 Benzo(a)anthracene	29.964	29.976	29.975	29.964	29.964	29.964	29.964	29.964	26.964-32.964	29.967	0.005
$	56 Chrysene-d12	30.088	30.099	30.088	30.088	30.088	30.088	30.088	30.088	27.088-33.088	30.090	0.004
	57 Chrysene	30.167	30.167	30.167	30.167	30.167	30.167	30.167	30.167	27.167-33.167	30.167	0.000
	58 C1-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.000	28.000-34.000	+++++	+++++
	59 C2-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.800	28.800-34.800	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
60 C3-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.000	30.000-36.000	+++++	+++++
61 C4-Benzo(a)anthracenes	+++++	+++++	+++++	+++++	+++++	+++++	+++++	33.200	30.200-36.200	+++++	+++++
62 Benzo(b)fluoranthene	32.386	32.386	32.386	32.386	32.386	32.386	32.386	32.386	29.386-35.386	32.386	0.000
293 Benzo(j)fluoranthene	32.498	32.498	32.498	32.498	32.498	32.498	32.498	32.498	29.498-35.498	32.498	0.000
63 Benzo(k)fluoranthene	32.431	32.442	32.431	32.431	32.431	32.431	32.431	32.431	29.431-35.431	32.432	0.004
* 251 Benzo(e)pyrene-d12	33.050	33.050	33.050	33.050	33.050	33.050	33.050	33.050	30.050-36.050	33.050	0.000
64 Benzo(e)pyrene	33.107	33.107	33.106	33.107	33.107	33.107	33.107	33.107	30.107-36.107	33.107	0.000
246 Total Benzofluoranthen	32.386	32.386	32.498	32.431	32.431	32.498	32.498	32.498	29.498-35.498	32.447	0.052
65 Benzo(a)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.348	22.348-28.348	+++++	+++++
66 Benzo(a)pyrene	33.208	33.208	33.208	33.208	33.208	33.208	33.208	33.208	30.208-36.208	33.208	0.000
$ 67 Perylene-d12	33.388	33.388	33.388	33.388	33.377	33.388	33.388	33.388	30.388-36.388	33.387	0.004
68 Perylene	33.444	33.445	33.444	33.445	33.433	33.433	33.433	33.433	30.433-36.433	33.440	0.006
69 Indeno(1,2,3-cd)pyrene	35.427	35.427	35.427	35.427	35.416	35.427	35.415	35.415	32.415-38.415	35.424	0.005
70 Dibenzo(a,h)anthracene	35.415	35.416	35.415	35.404	35.404	35.404	35.404	35.404	32.404-38.404	35.409	0.006
71 C1-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	36.000	33.000-39.000	+++++	+++++
72 C2-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	37.000	34.000-40.000	+++++	+++++
73 C3-Dibenzo(a)anthracen	+++++	+++++	+++++	+++++	+++++	+++++	+++++	38.000	35.000-41.000	+++++	+++++
74 Benzo(g,h,i)perylene	36.294	36.305	36.294	36.294	36.294	36.294	36.294	36.294	33.294-39.294	36.296	0.004
253 n-Octane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	5.322	2.322-8.322	+++++	+++++
254 n-Nonane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	6.986	3.986-9.986	+++++	+++++
262 n-Decane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	8.446	5.446-11.446	+++++	+++++
255 n-Undecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	9.869	6.869-12.869	+++++	+++++
256 n-Dodecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	11.131	8.131-14.131	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
257 n-Tridecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	12.527	9.527-15.527	+++++	+++++
258 n-Tetradecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	13.495	10.495-16.495	+++++	+++++
259 n-Pentadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	14.559	11.559-17.559	+++++	+++++
263 n-Hexadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	15.570	12.570-18.570	+++++	+++++
264 n-Heptadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.533	13.533-19.533	+++++	+++++
265 n-Octadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.453	14.453-20.453	+++++	+++++
266 Pristane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	16.608	13.608-19.608	+++++	+++++
288 n-Nonadecane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	18.282	15.282-21.282	+++++	+++++
289 Phytane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	17.517	14.517-20.517	+++++	+++++
267 n-Eicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.090	16.090-22.090	+++++	+++++
268 n-Heneicosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	19.962	16.962-22.962	+++++	+++++
270 n-Docosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	20.529	17.529-23.529	+++++	+++++
271 n-Tricosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.133	18.133-24.133	+++++	+++++
272 n-Tetracosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	21.839	18.839-24.839	+++++	+++++
273 n-Pentacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	22.245	19.245-25.245	+++++	+++++
274 n-Hexacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.251	20.251-26.251	+++++	+++++
275 n-Heptacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	23.764	20.764-26.764	+++++	+++++
276 n-Octacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.128	21.128-27.128	+++++	+++++
291 n-Nonacosane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	24.626	21.626-27.626	+++++	+++++
278 n-Triacontain	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.075	22.075-28.075	+++++	+++++
279 n-Hentriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.519	22.519-28.519	+++++	+++++
280 n-Dotriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	25.952	22.952-28.952	+++++	+++++
281 n-Tritriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.364	23.364-29.364	+++++	+++++
282 n-Tetratriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	26.829	23.829-29.829	+++++	+++++

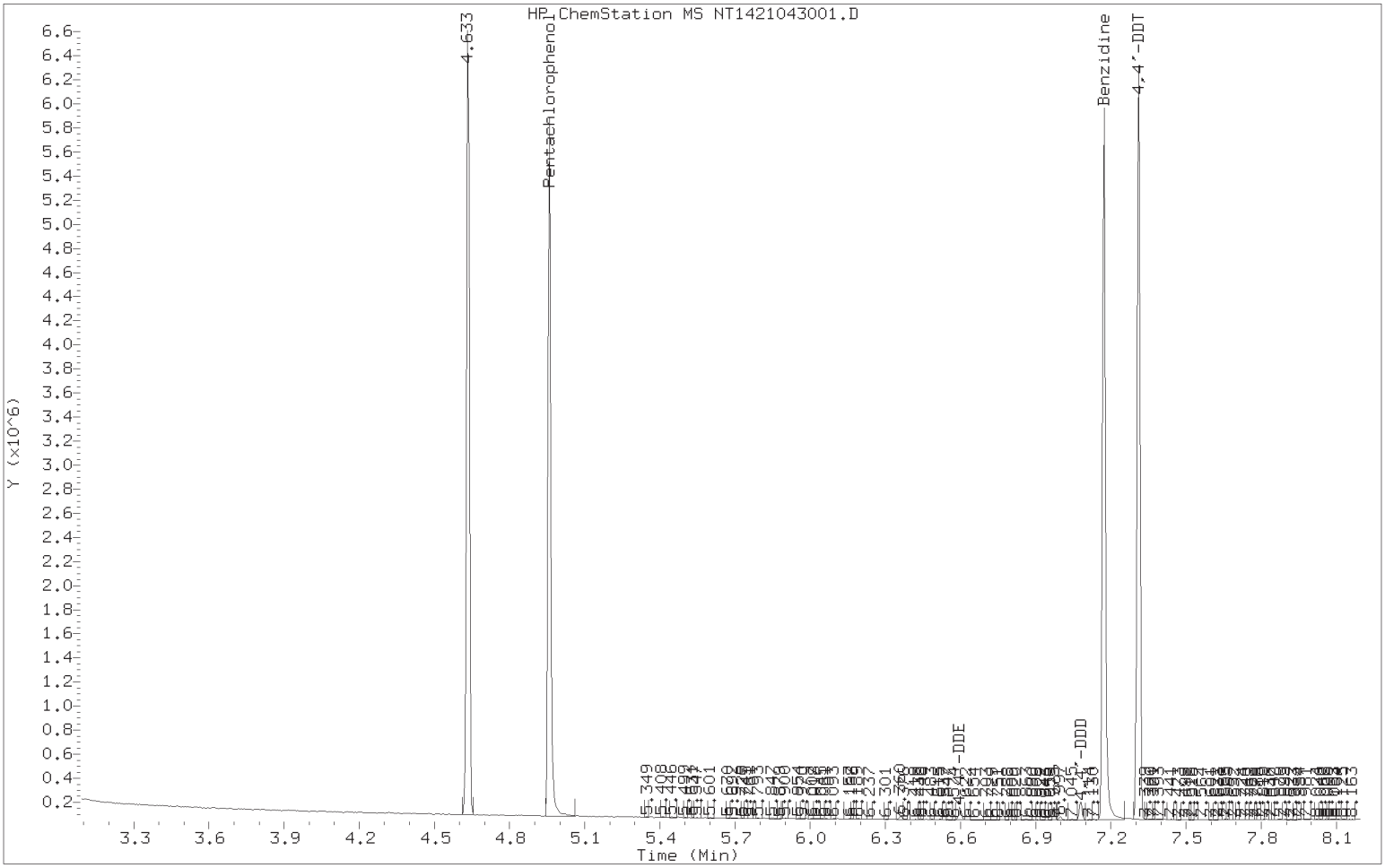
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

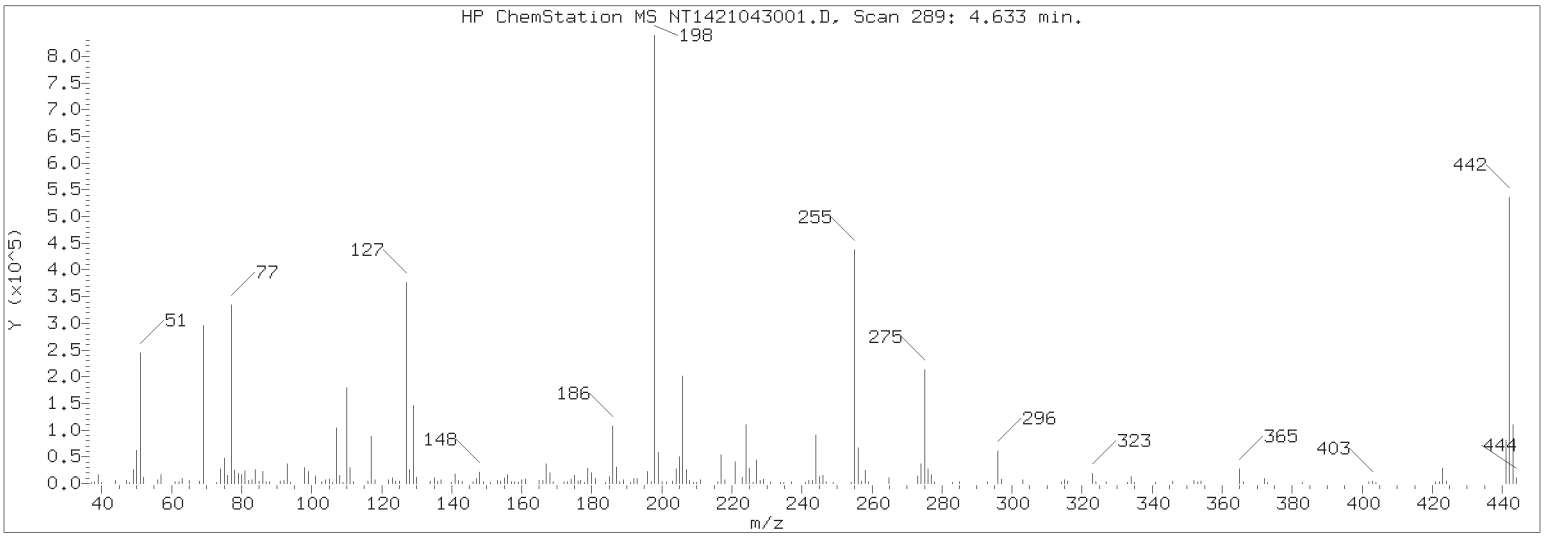
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Batch File: \\target\share\chem3\nt14.i\20210430.b
Inst ID: nt14.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	EXPEC RT	RT WINDOW	AVG RT	STD DEV
283 n-Pentatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.370	24.370-30.370	+++++	+++++
284 n-Hexatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	27.936	24.936-30.936	+++++	+++++
285 n-Heptatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	28.578	25.578-31.578	+++++	+++++
286 n-Octatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	29.295	26.295-32.295	+++++	+++++
292 n-Nonatriacontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	30.135	27.135-33.135	+++++	+++++
287 n-Tetracontane	+++++	+++++	+++++	+++++	+++++	+++++	+++++	31.103	28.103-34.103	+++++	+++++

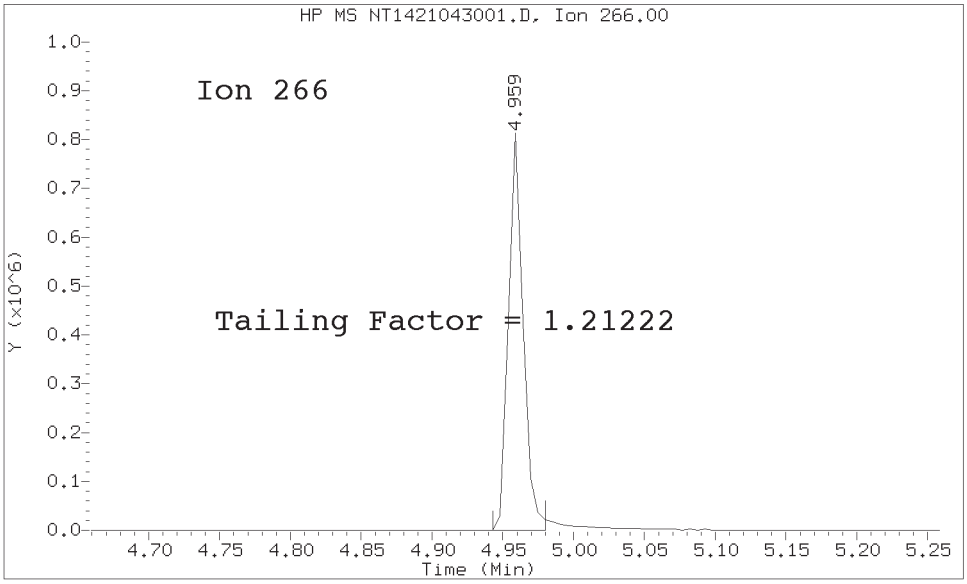
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: VTS
Sample Info: SJD0305-TUN1 SJD0305-TUN1
Report Date: 05/01/2021 09:19



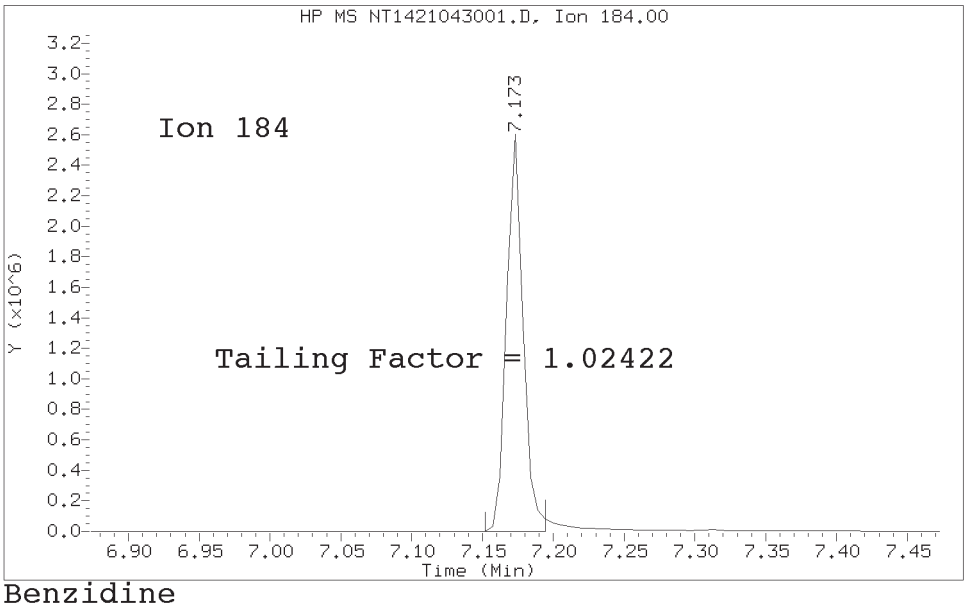


Datafile Analyzed: /20210430.b/NT1421043001.D/NT1421043001.D
Method Used: \20210430.b\DFTPP8270E.m\sw846ddt.m Inst: nt14
Injection Date: 30-APR-2021 07:42 Operator: JZ
Sample Info: SJD0305-TUN1
Report Date: 05/01/2021 09:19



Pentachlorophenol
==========
Exp. RT = 4.900
Found RT = 4.959

Tail Factor = 1.212 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.114
Found RT = 7.173

Tail Factor = 1.024 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.2122241	2.000	PASS
Benzidine	1.0242165	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1038588			N/A
4,4-DDE	14738	1.4	20.0	PASS
4,4-DDD	33747	3.1	20.0	PASS
4,4-DDD + DDE	48485	4.5	20.0	PASS

Tuning Sample, nt14.i/20210430.b/NT1421043001.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
68	Less than 2.00% of mass 69	0.53 (1.49)
69	Mass 69 relative abundance	35.45
70	Less than 2.00% of mass 69	0.00 (0.00)
197	Less than 2.00% of mass 198	0.39
199	5.00 - 9.00% of mass 198	6.79
365	1.00 - 100.00% of mass 198	3.67
441	Less than 150.00% of mass 443	11.21 (73.74)
442	Less than 200.00% of mass 198	76.36
443	15.00 - 24.00% of mass 442	15.20 (19.91)

Data File: NT1421043001.D
Spectrum: Avg. Scans 288-290 (4.63), Background Scan 284
Location of Maximum: 198.00
Number of points: 195

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	2307	117.00	64224	186.00	79176	257.00	2873
38.00	1830	118.00	4688	187.00	23080	258.00	19488
39.00	13134	122.00	4775	188.00	1825	259.00	2625
40.00	233	123.00	7561	189.00	5004	265.00	7710
47.00	375	124.00	3436	191.00	1578	273.00	10495
50.00	46288	125.00	3193	192.00	6850	274.00	27888
51.00	173248	127.00	273024	193.00	7431	275.00	158080
52.00	9018	128.00	20160	196.00	16480	276.00	21120
56.00	5264	129.00	104904	197.00	2428	277.00	13058
57.00	12144	130.00	9057	198.00	618880	278.00	1985
61.00	1175	134.00	2970	199.00	42008	283.00	679
62.00	2696	135.00	8307	200.00	2535	285.00	2051
63.00	7970	136.00	2593	201.00	2065	293.00	2424
65.00	4088	137.00	4775	203.00	3878	296.00	47472
68.00	3274	140.00	673	204.00	20656	297.00	6386
69.00	219392	141.00	13472	205.00	37136	303.00	4653
73.00	771	142.00	4294	206.00	149440	314.00	1930
74.00	20872	143.00	2219	207.00	19336	315.00	5268
75.00	34640	146.00	2025	208.00	4570	316.00	2553
76.00	11486	147.00	6393	209.00	683	321.00	692
77.00	245888	148.00	15704	210.00	1839	323.00	15144
78.00	17552	149.00	3399	211.00	5848	324.00	2307
79.00	14928	151.00	851	216.00	2548	327.00	2437
80.00	12053	153.00	4256	217.00	40440	328.00	823
81.00	17736	154.00	3418	218.00	5055	333.00	1386
82.00	4592	155.00	8190	221.00	31424	334.00	10030
83.00	4982	156.00	11993	222.00	3423	335.00	2126
85.00	3705	157.00	1035	223.00	8830	341.00	1445
86.00	3968	158.00	1779	224.00	82552	346.00	3529
87.00	1821	159.00	1518	225.00	20728	352.00	3927
88.00	1052	160.00	4437	226.00	1789	353.00	2529
91.00	3845	161.00	6138	227.00	32848	354.00	3631
92.00	4275	165.00	4964	228.00	4338	365.00	22720
93.00	27984	166.00	4331	229.00	7036	366.00	2657
94.00	830	167.00	27584	231.00	2550	372.00	7576
98.00	20864	168.00	15655	234.00	1752	373.00	1628
99.00	17616	169.00	2066	235.00	1972	383.00	1853
101.00	10467	172.00	2038	237.00	2335	402.00	2788
103.00	2694	173.00	3160	241.00	1773	403.00	3626
104.00	5772	174.00	6117	242.00	4477	404.00	1482
105.00	5608	175.00	11419	243.00	4863	421.00	3059
106.00	882	176.00	2467	244.00	67984	422.00	2988
107.00	76520	177.00	4558	245.00	9224	423.00	24400
108.00	11732	178.00	721	246.00	12110	424.00	4104
109.00	835	179.00	21768	247.00	2181	441.00	69376
110.00	130600	180.00	14376	249.00	1945	442.00	472576
111.00	20592	181.00	7245	254.00	1631	443.00	94080
112.00	1824	184.00	832	255.00	328512	444.00	8551
116.00	3803	185.00	9659	256.00	49696		

+------------------+------------------+------------------+------------------+

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D

Date : 30-APR-2021 07:56

Client ID:

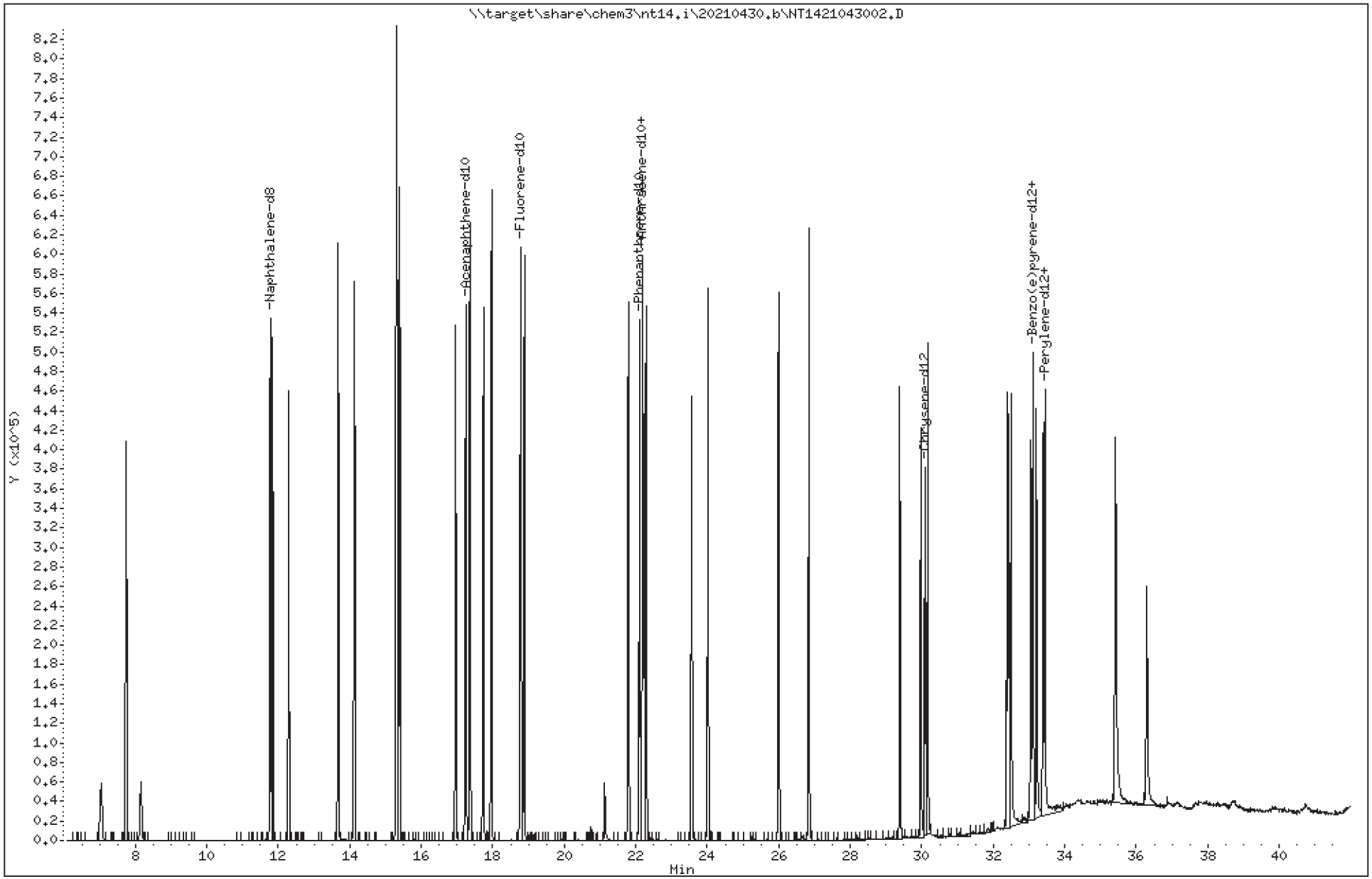
Instrument: nt14.i

Sample Info: SJD0305-CAL5

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043002.D
Lab Smp Id: SJD0305-CAL5
Inj Date : 30-APR-2021 07:56
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL5
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	85367	2.50000	2.726
	2 cis-Decalin	138	8.144	8.165	(0.434)	60830	2.50000	2.813
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	686375	2.50000	2.829
	7 Naphthalene	128	11.836	11.846	(0.630)	689586	2.50000	2.794
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	556615	2.50000	2.835
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	379920	2.50000	2.885
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	356885	2.50000	2.860
	18 Biphenyl	154	15.317	15.317	(0.816)	534679	2.50000	2.837
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	381425	2.50000	2.941
	20 Acenaphthylene	152	16.955	16.955	(0.903)	628483	2.50000	3.079
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	350378	2.50000	2.957
	22 Acenaphthene	153	17.361	17.361	(0.924)	391033	2.50000	2.981
	23 Dibenzofuran	168	17.735	17.735	(0.944)	585505	2.50000	2.945
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	352518	2.50000	3.097
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	420456	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	425653	2.50000	2.946
	30 Dibenzothiophene	184	21.794	21.794	(1.160)	549778	2.50000	3.015
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	522491	2.50000	2.538
	36 Phenanthrene	178	22.190	22.190	(0.999)	585408	2.50000	2.547
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	381033	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	551096	2.50000	2.601
	42 Carbazole	167	23.564	23.565	(1.060)	456095	2.50000	2.555
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	379265	2.50000	2.717
	44 Fluoranthene	202	25.994	25.994	(1.170)	547764	2.50000	2.683
	46 Pyrene	202	26.841	26.841	(1.208)	563045	2.50000	2.661
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	527046	2.50000	2.556
	55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	446476	2.50000	2.618
$	56 Chrysene-d12	240	30.087	30.087	(0.910)	367860	2.50000	2.729
	57 Chrysene	228	30.166	30.166	(0.913)	457148	2.50000	2.638
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	420145	2.50000	2.653(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	487427	2.50000	2.531(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	477634	2.50000	2.706
	246 Total Benzofluoranthenes	252	32.385	32.497	(0.980)	1316043	7.50000	7.589(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	370998	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	417237	2.50000	2.640
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	408730	2.50000	2.513
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	360463	2.50000	2.499
68 Perylene	252	33.444	33.433	(1.012)	417121	2.50000	2.764(M)
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	429930	2.50000	2.551(M)
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	387021	2.50000	2.651
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	383498	2.50000	2.698

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043002.D
Lab Smp Id: SJD0305-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	420456	0.00
250 Anthracene-d10	381033	190517	762066	381033	0.00
251 Benzo(e)pyrene-d1	370998	185499	741996	370998	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043002.D

Lab ID: SJD0305-CAL5
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 07:56

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

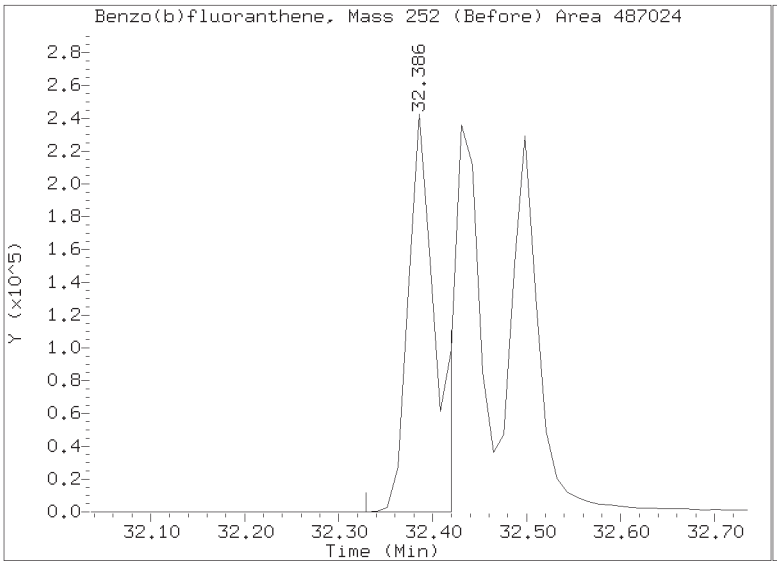
RRT check based on Ccal File: NT1421043009.D

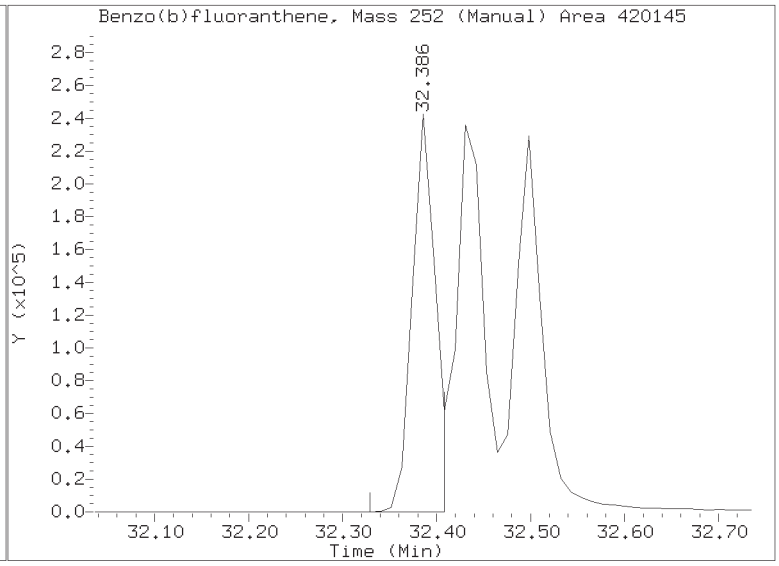
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

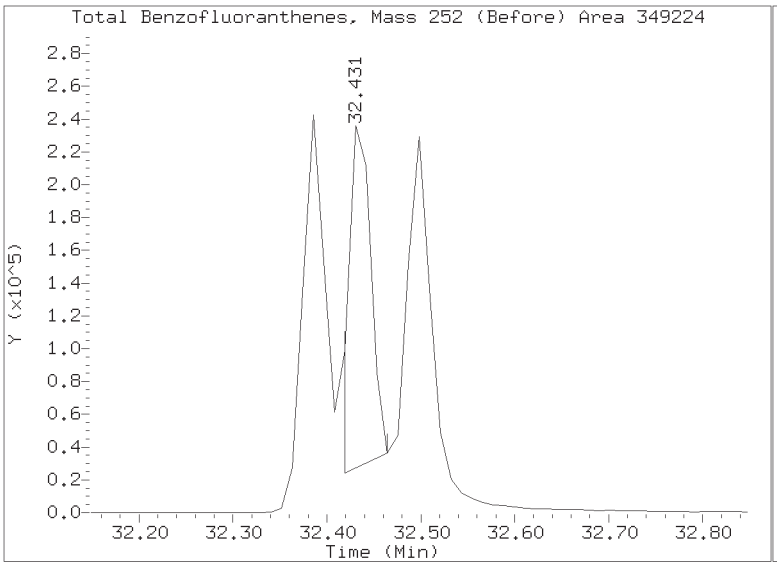
* Only compounds listed in the work order have been verified by the analyst *

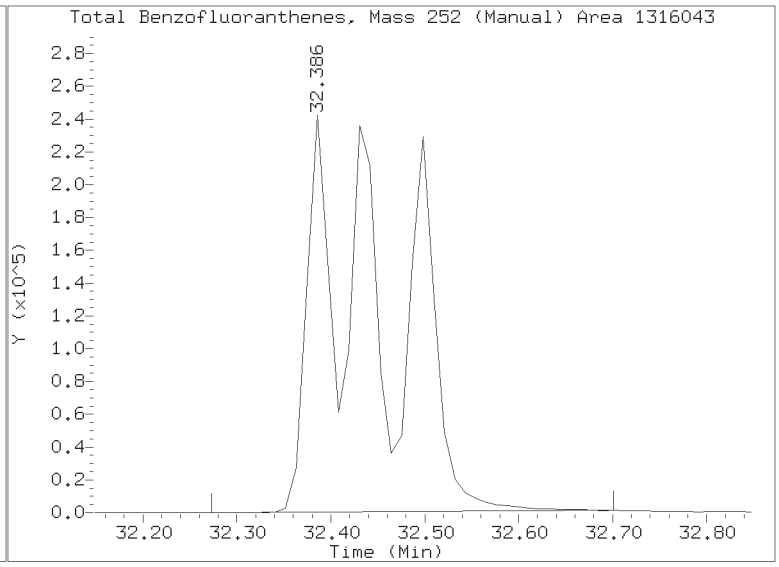
Quant Ion Manual Peak Adjustment Report

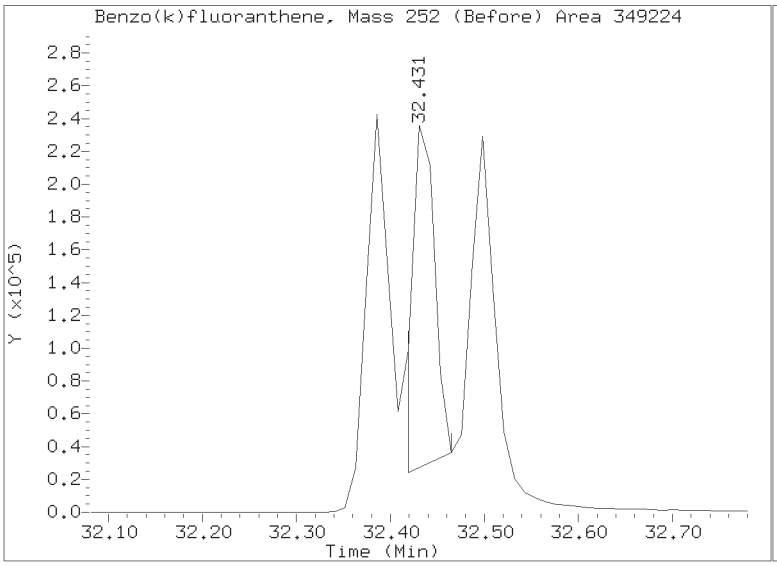
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043002.D
Injection Date: 30-APR-2021 07:56
Lab ID:SJD0305-CAL5 Client ID:
Report Date: 05/01/2021 09:18

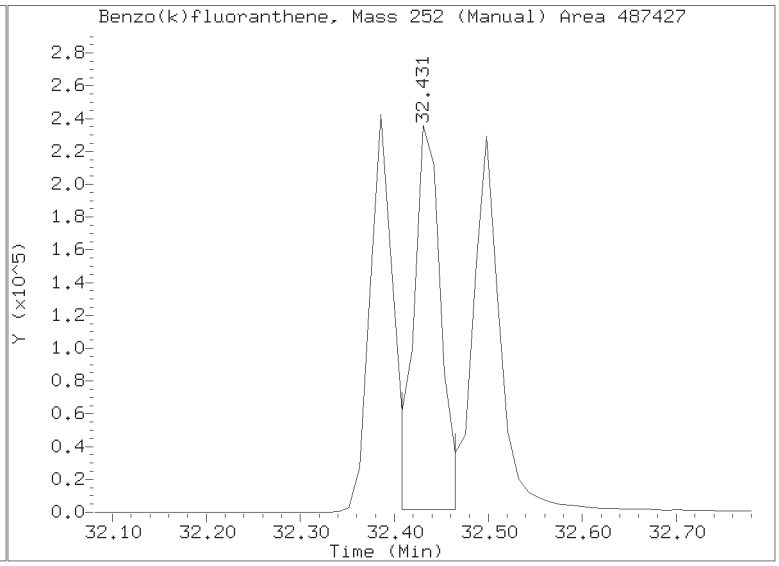






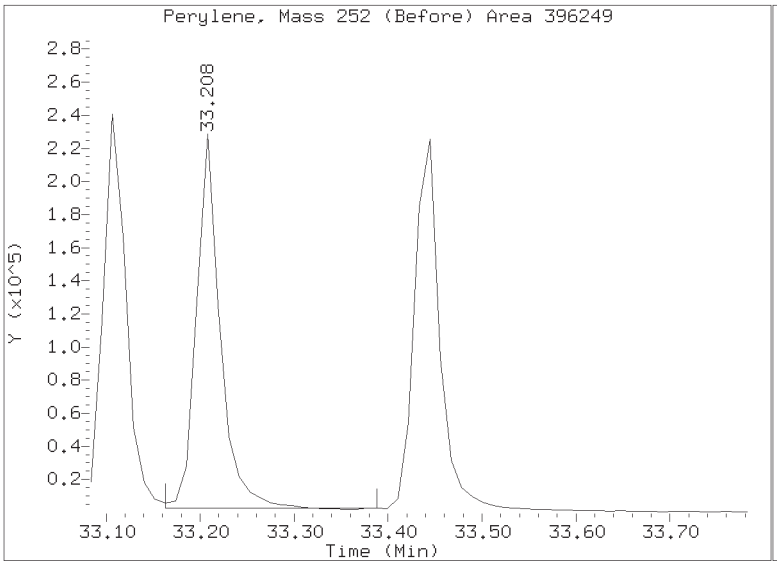


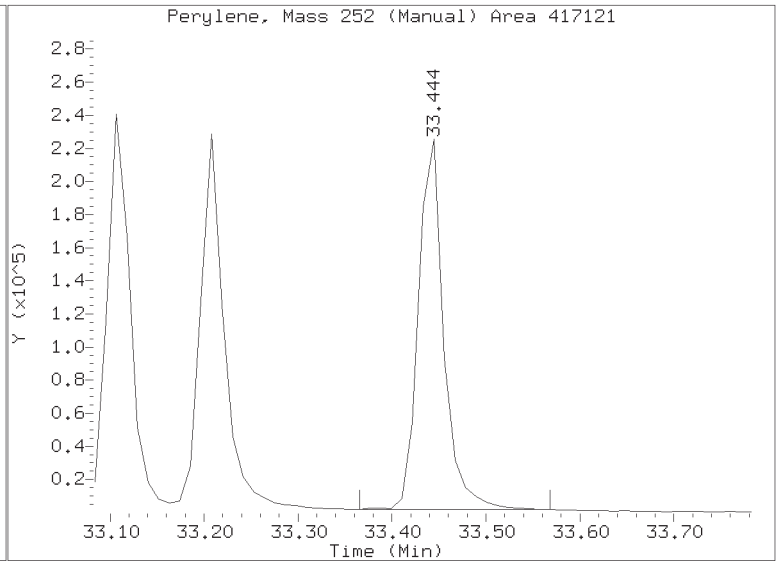


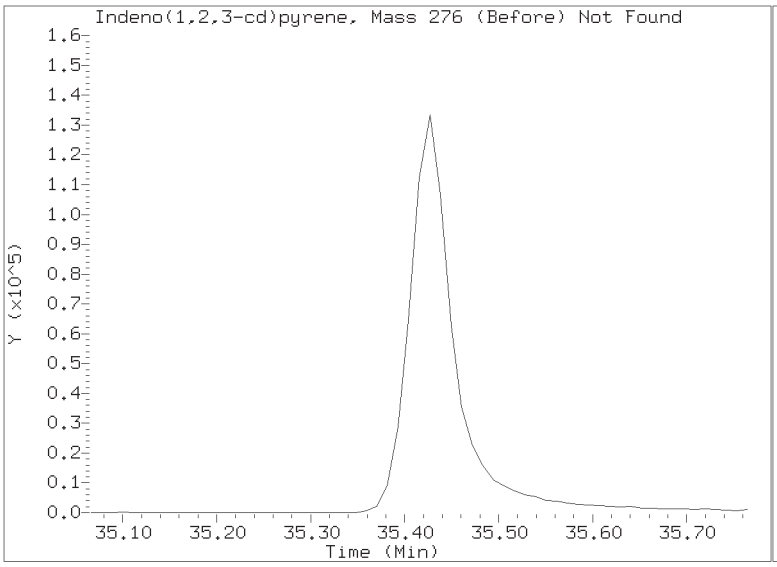


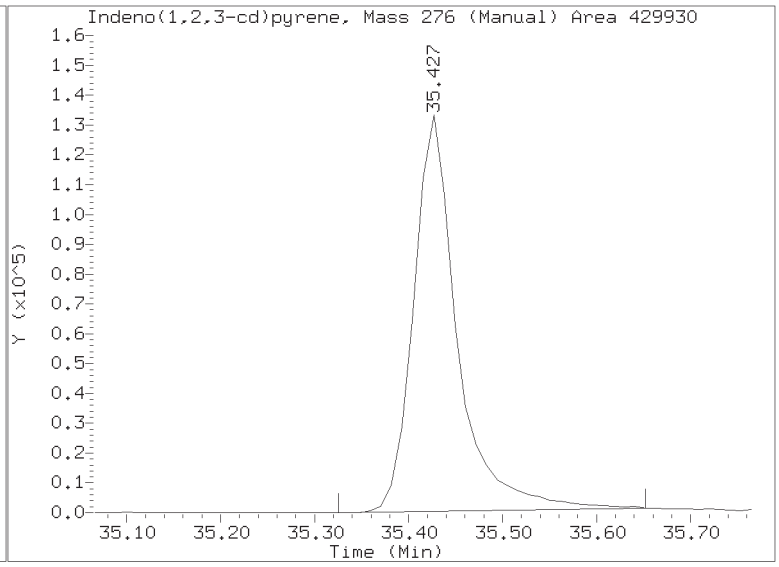
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043002.D
Injection Date: 30-APR-2021 07:56
Lab ID:SJD0305-CAL5 Client ID:
Report Date: 05/01/2021 09:18









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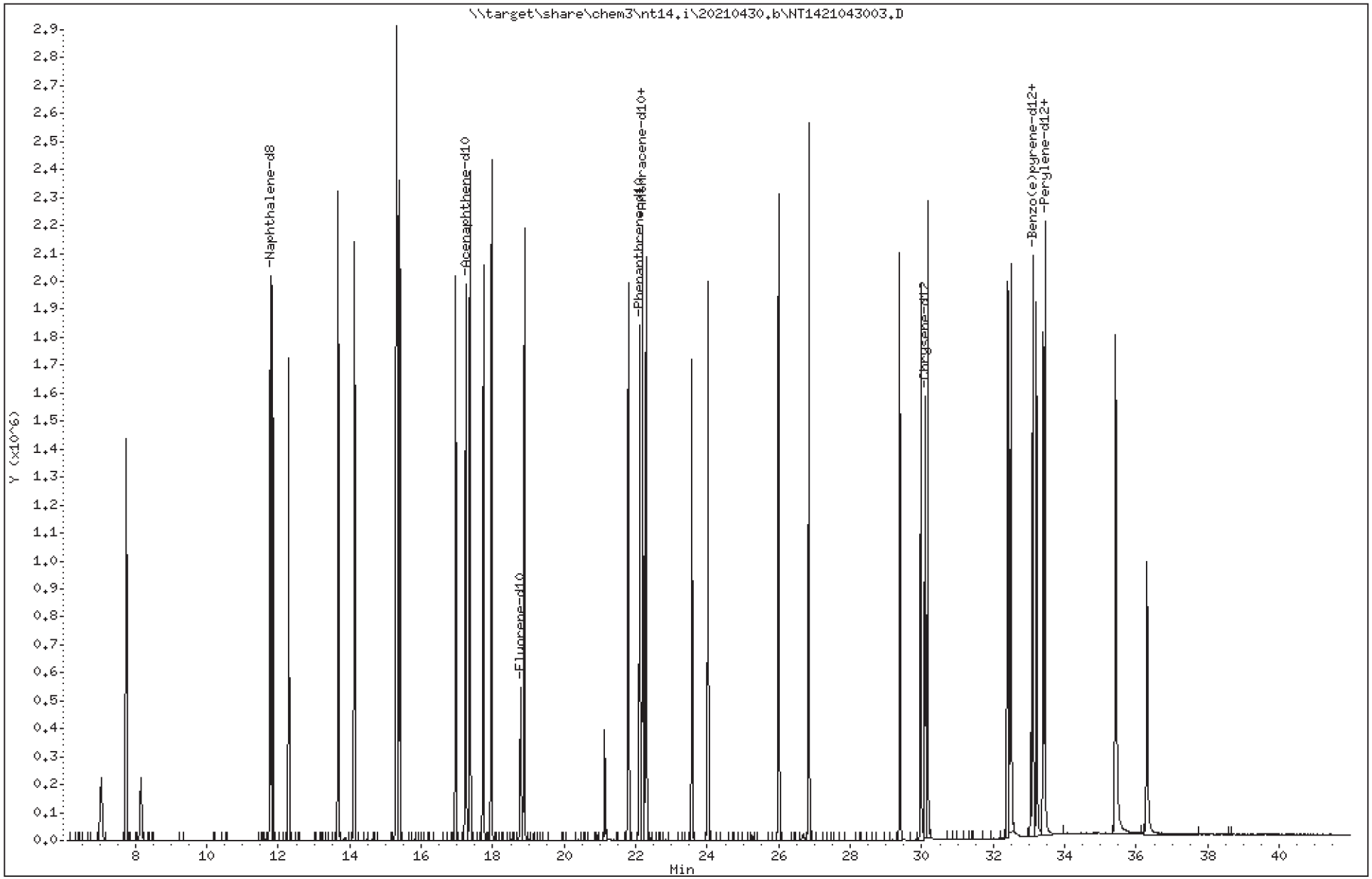
Date : 30-APR-2021 08:43
Client ID:
Sample Info: SJD0305-CAL7

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043003.D
Lab Smp Id: SJD0305-CAL7
Inj Date : 30-APR-2021 08:43
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL7
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 3 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	319837	10.0000	9.260
	2 cis-Decalin	138	8.155	8.165	(0.434)	219615	10.0000	9.210
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	2579043	10.0000	9.638
	7 Naphthalene	128	11.846	11.846	(0.631)	2586130	10.0000	9.501
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	2069306	10.0000	9.556
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	1374576	10.0000	9.464
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	1289212	10.0000	9.368
	18 Biphenyl	154	15.318	15.317	(0.816)	1933813	10.0000	9.303
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	1368411	10.0000	9.567
	20 Acenaphthylene	152	16.966	16.955	(0.903)	2414895	10.0000	10.73
$	21 Acenaphthene-d10	164	17.252	17.241	(0.919)	1272997	10.0000	9.743
	22 Acenaphthene	153	17.362	17.361	(0.924)	1442706	10.0000	9.972
	23 Dibenzofuran	168	17.735	17.735	(0.944)	2137300	10.0000	9.750
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	1294969	10.0000	10.32
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	463680	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	1585198	10.0000	9.950
	30 Dibenzothiophene	184	21.795	21.794	(1.160)	2029041	10.0000	10.09
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	1932325	10.0000	9.978
	36 Phenanthrene	178	22.190	22.190	(0.999)	2139356	10.0000	9.895
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	358366	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	2105646	10.0000	10.57
	42 Carbazole	167	23.565	23.565	(1.060)	1826349	10.0000	9.996
	43 1-Methylphenanthrene	192	24.026	24.015	(1.081)	1457708	10.0000	11.10
	44 Fluoranthene	202	25.994	25.994	(1.170)	2236441	10.0000	11.65
	46 Pyrene	202	26.841	26.841	(1.208)	2340861	10.0000	11.76
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	2214593	10.0000	11.42
	55 Benzo(a)anthracene	228	29.975	29.964	(0.907)	1937453	10.0000	10.00
$	56 Chrysene-d12	240	30.099	30.087	(0.911)	1494636	10.0000	11.32
	57 Chrysene	228	30.166	30.166	(0.913)	1883357	10.0000	11.10
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	1819751	10.0000	10.00(M)
	63 Benzo(k)fluoranthene	252	32.442	32.430	(0.982)	2177474	10.0000	9.993(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	1749475	10.0000	10.12(M)
	246 Total Benzofluoranthenes	252	32.385	32.497	(0.980)	5667360	30.0000	29.98(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	363264	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	1818308	10.0000	11.75
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	1671590	10.0000	9.986
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	1547561	10.0000	9.989
68 Perylene	252	33.444	33.433	(1.012)	1773530	10.0000	12.00(M)
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	1909904	10.0000	9.993(M)
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	1698276	10.0000	9.999(M)
74 Benzo(g,h,i)perylene	276	36.305	36.293	(1.098)	1575755	10.0000	11.32(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043003.D
Lab Smp Id: SJD0305-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	463680	10.28
250 Anthracene-d10	381033	190517	762066	358366	-5.95
251 Benzo(e)pyrene-d1	370998	185499	741996	363264	-2.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043003.D

Lab ID: SJD0305-CAL7
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 08:43

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

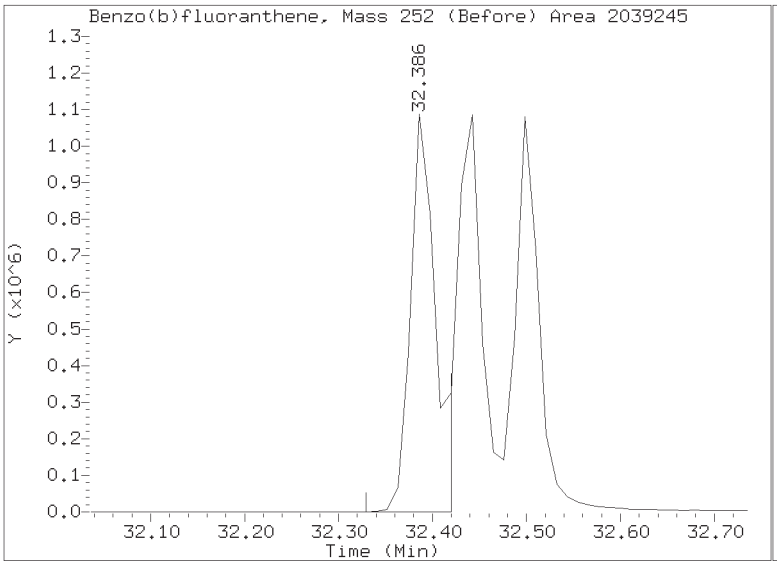
RRT check based on Ccal File: NT1421043009.D

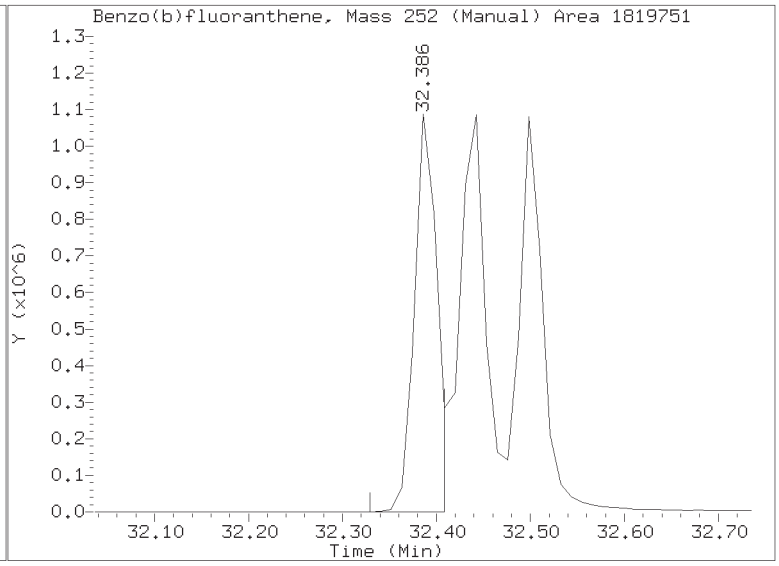
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

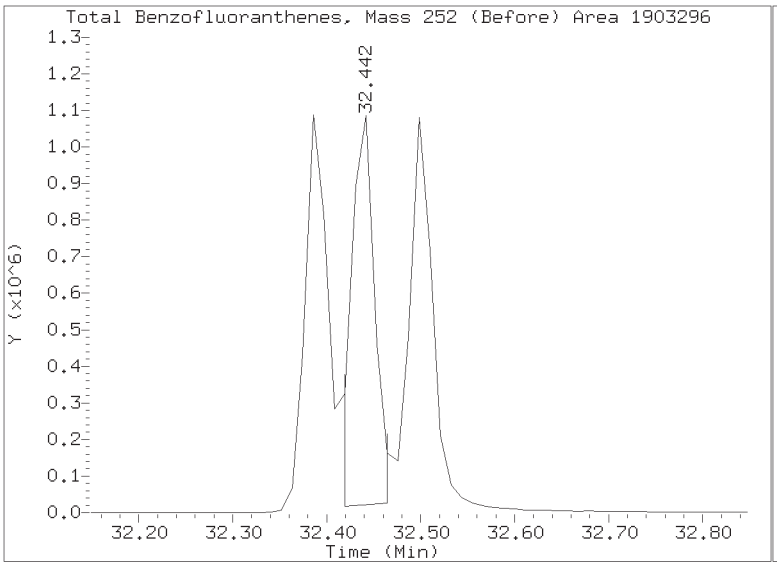
* Only compounds listed in the work order have been verified by the analyst *

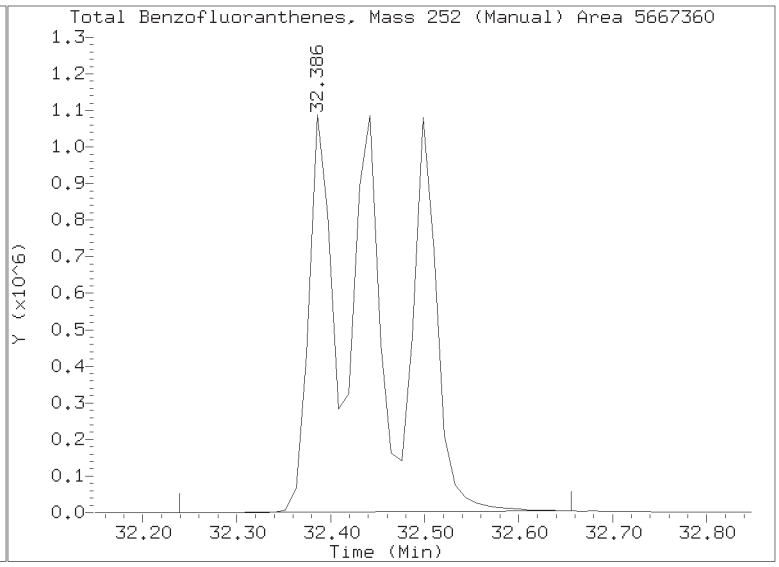
Quant Ion Manual Peak Adjustment Report

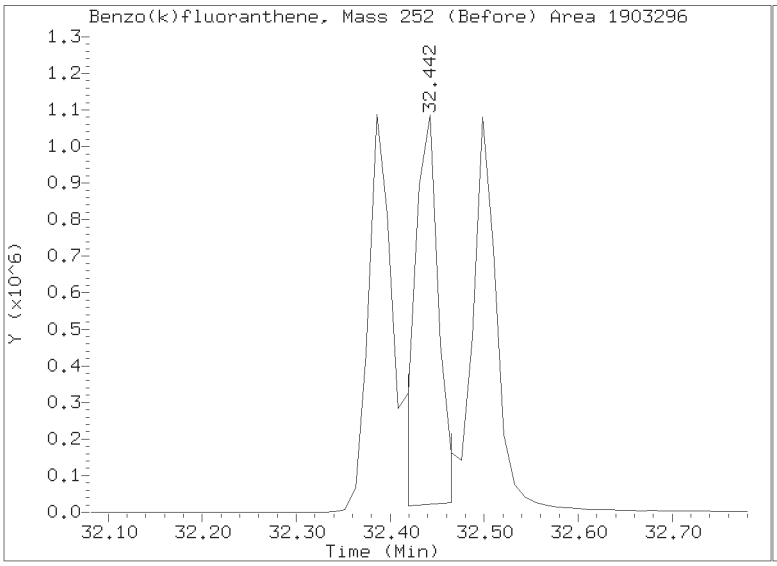
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18

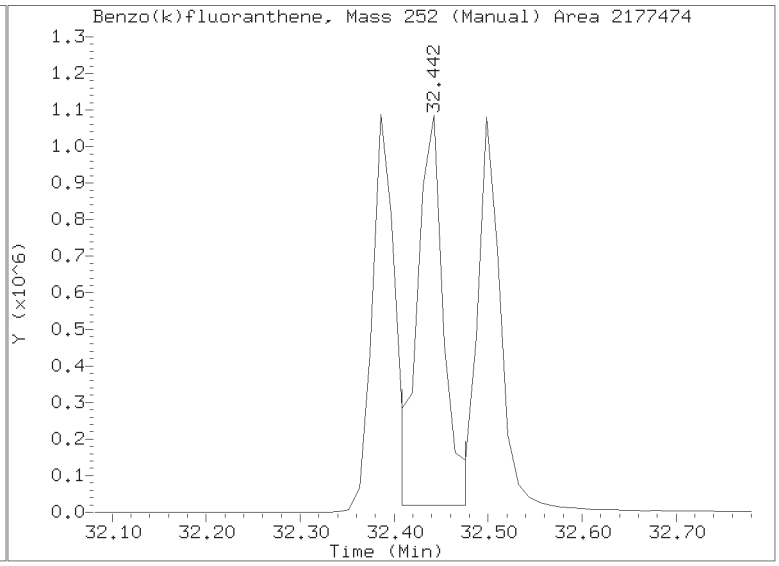






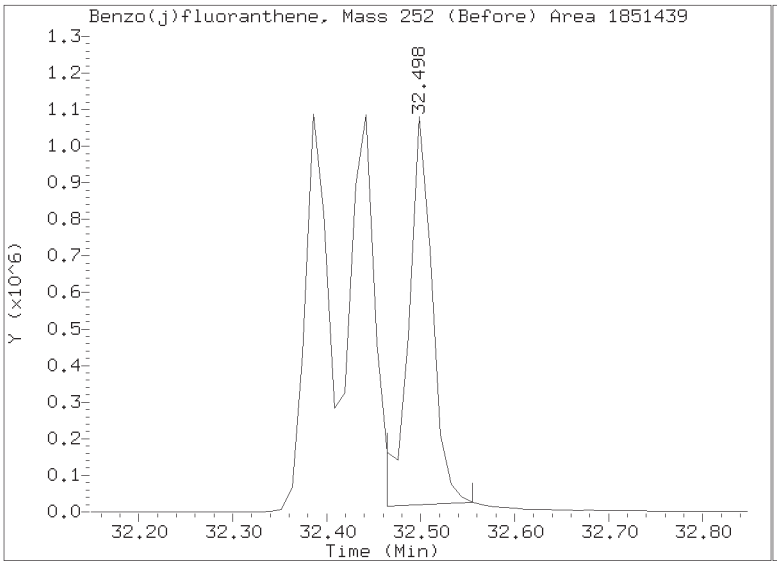


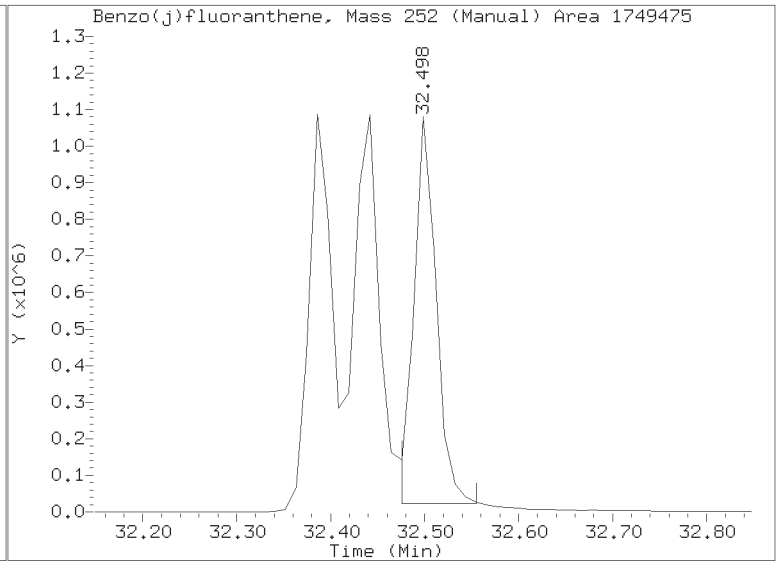


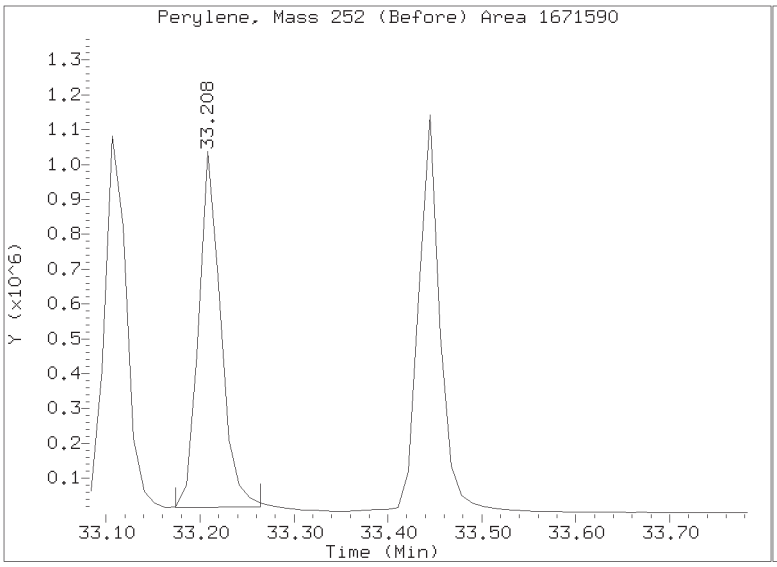


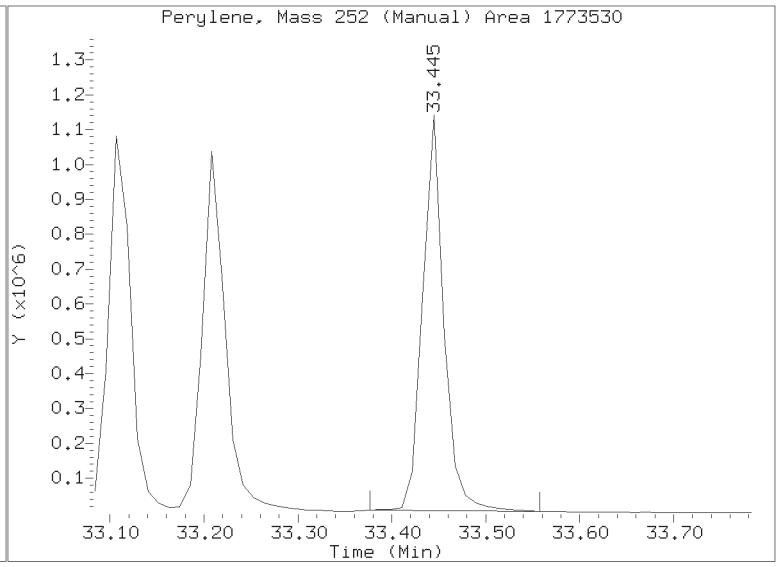
Quant Ion Manual Peak Adjustment Report

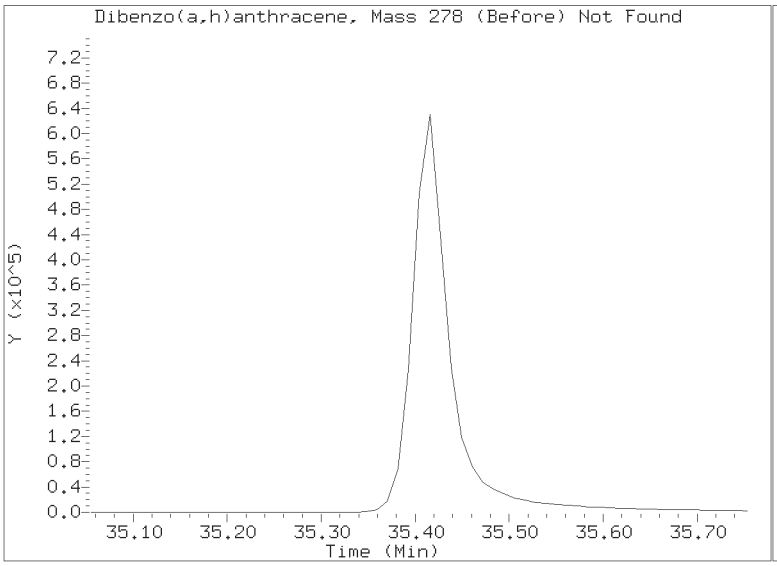
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18

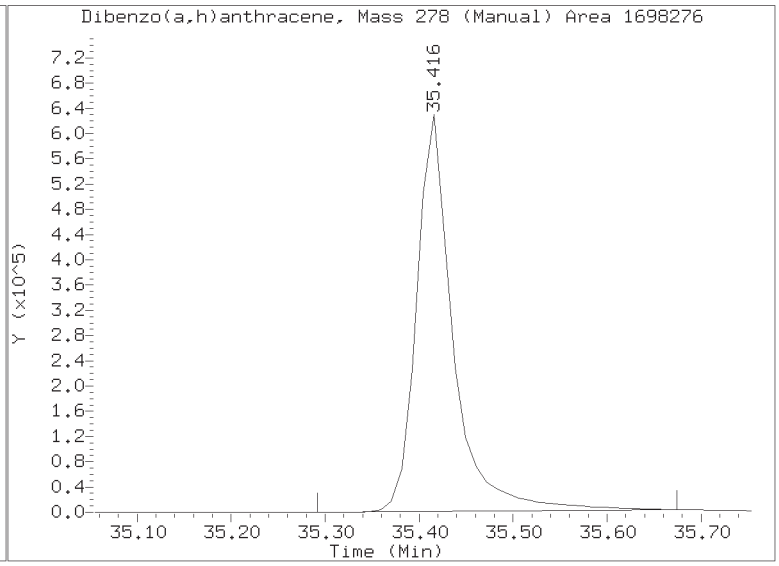






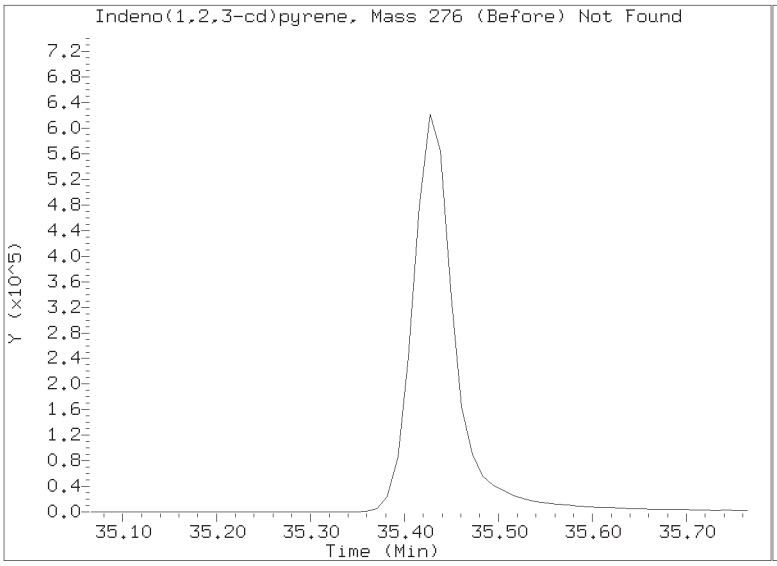


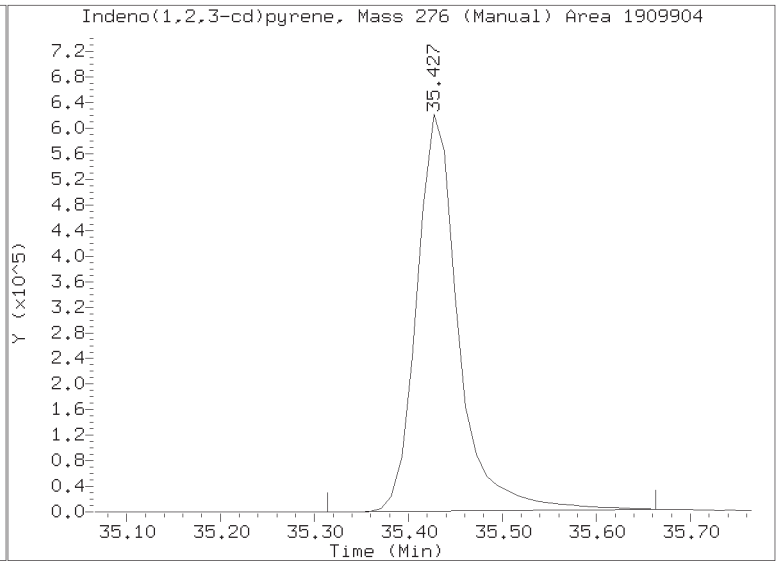


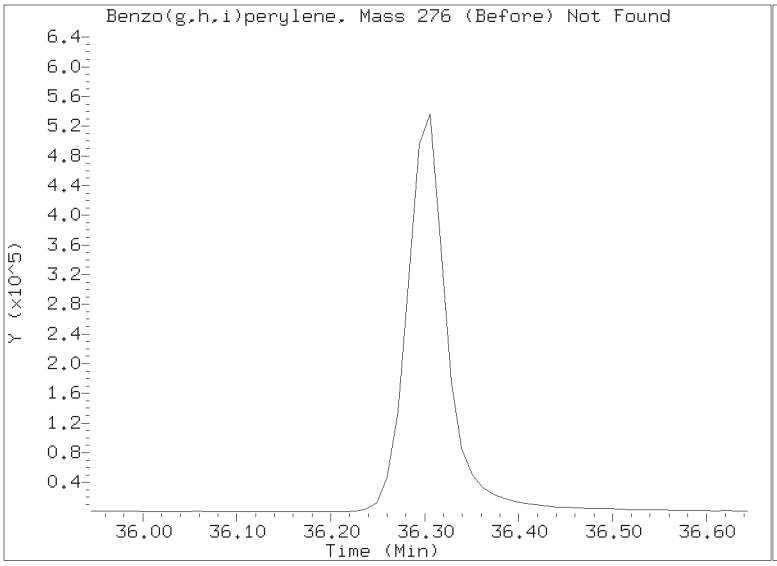


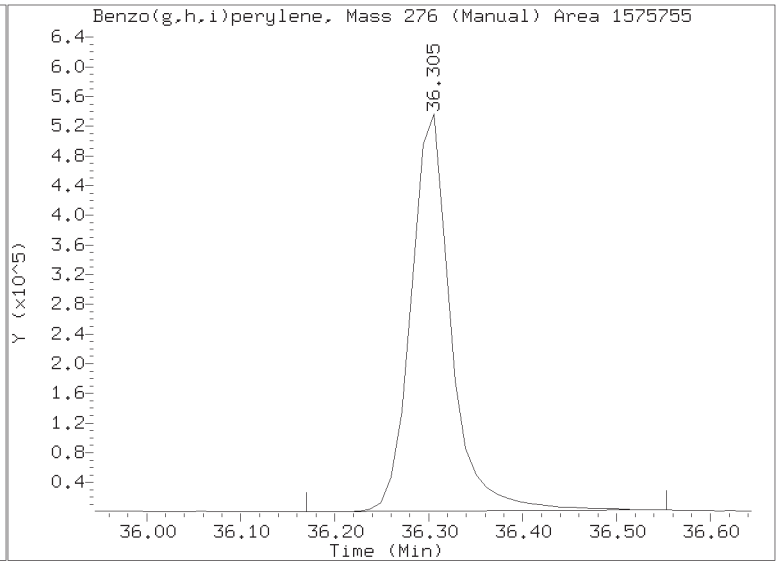
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043003.D
Injection Date: 30-APR-2021 08:43
Lab ID:SJD0305-CAL7 Client ID:
Report Date: 05/01/2021 09:18





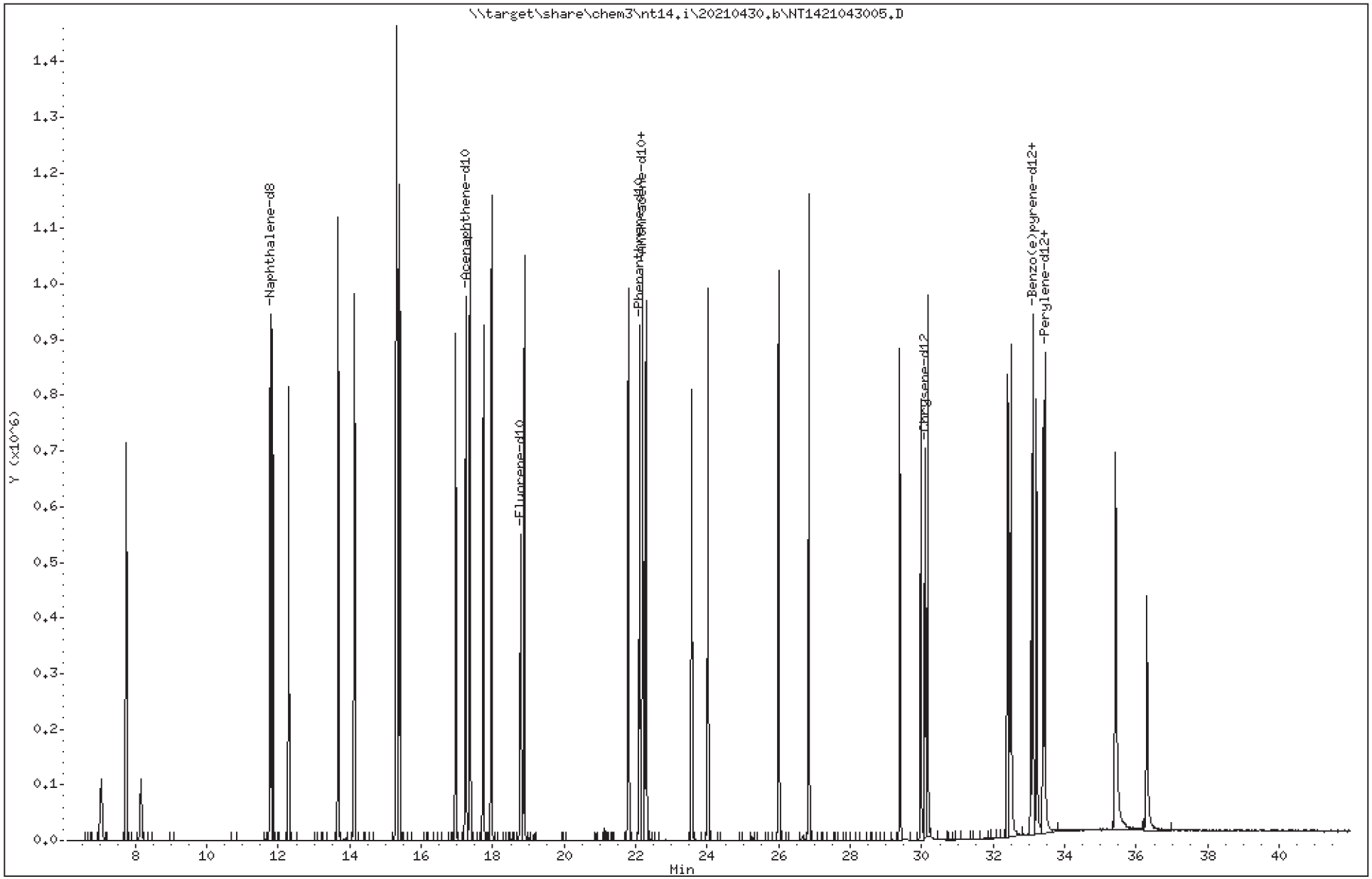




Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
Date : 30-APR-2021 10:19
Client ID:
Sample Info: SJD0305-CAL6

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043005.D
Lab Smp Id: SJD0305-CAL6
Inj Date : 30-APR-2021 10:19
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL6
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	156947	5.00000	4.588
	2 cis-Decalin	138	8.155	8.165	(0.434)	107281	5.00000	4.543
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	1216865	5.00000	4.592
	7 Naphthalene	128	11.846	11.846	(0.631)	1241347	5.00000	4.605
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	993653	5.00000	4.633
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	662919	5.00000	4.608
	17 1-methylnaphthalene	141	14.130	14.131	(0.752)	621380	5.00000	4.559
	18 Biphenyl	154	15.317	15.317	(0.816)	935729	5.00000	4.545
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	659555	5.00000	4.656
	20 Acenaphthylene	152	16.966	16.955	(0.903)	1126413	5.00000	5.053
$	21 Acenaphthene-d10	164	17.252	17.241	(0.919)	608691	5.00000	4.704
	22 Acenaphthene	153	17.361	17.361	(0.924)	690546	5.00000	4.820
	23 Dibenzofuran	168	17.735	17.735	(0.944)	1015505	5.00000	4.677
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	614956	5.00000	4.946
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	459220	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	755619	5.00000	4.789
	30 Dibenzothiophene	184	21.794	21.794	(1.160)	972518	5.00000	4.883
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	926168	5.00000	5.022
	36 Phenanthrene	178	22.190	22.190	(0.999)	1014539	5.00000	4.927
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	341294	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	983064	5.00000	5.179
	42 Carbazole	167	23.564	23.565	(1.060)	821511	5.00000	5.009
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	690120	5.00000	5.520
	44 Fluoranthene	202	25.994	25.994	(1.170)	1001664	5.00000	5.478
	46 Pyrene	202	26.841	26.841	(1.208)	1059094	5.00000	5.589
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	1002636	5.00000	5.430
	55 Benzo(a)anthracene	228	29.975	29.964	(0.907)	827232	5.00000	4.960
$	56 Chrysene-d12	240	30.087	30.087	(0.910)	704947	5.00000	5.566
	57 Chrysene	228	30.166	30.166	(0.913)	871804	5.00000	5.355
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	768268	5.00000	4.953(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	948756	5.00000	5.031(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	950172	5.00000	5.730
	246 Total Benzofluoranthenes	252	32.498	32.497	(0.983)	2536622	15.0000	15.08(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	348573	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	811609	5.00000	5.467
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	786034	5.00000	5.061
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	704502	5.00000	5.051(M)
68 Perylene	252	33.444	33.433	(1.012)	787198	5.00000	5.552(M)
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	829636	5.00000	5.026(M)
70 Dibenzo(a,h)anthracene	278	35.415	35.404	(1.072)	712758	5.00000	4.970(M)
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	723412	5.00000	5.416(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043005.D
Lab Smp Id: SJD0305-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	459220	9.22
250 Anthracene-d10	381033	190517	762066	341294	-10.43
251 Benzo(e)pyrene-d1	370998	185499	741996	348573	-6.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	-0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	-0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043005.D

Lab ID: SJD0305-CAL6
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 10:19

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

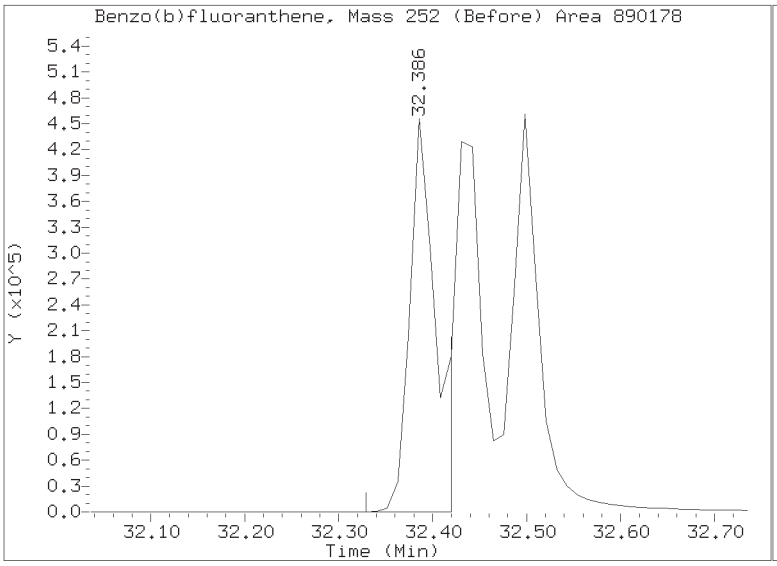
RRT check based on Ccal File: NT1421043009.D

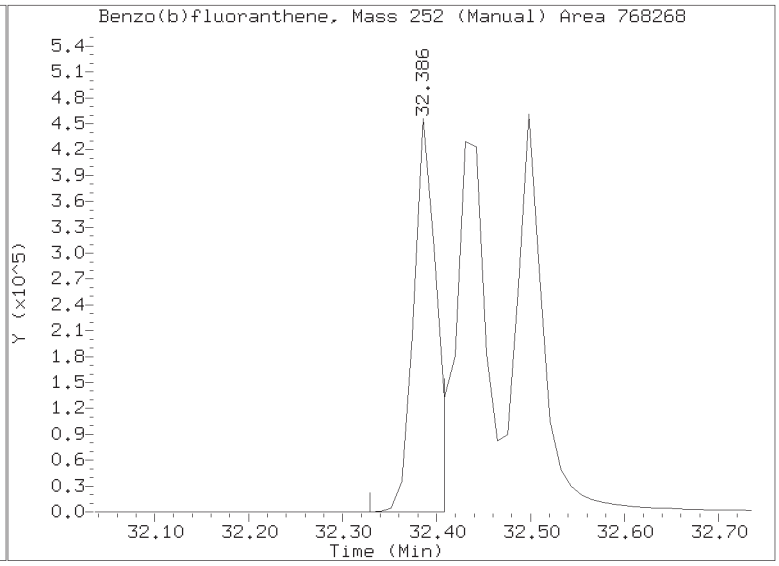
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

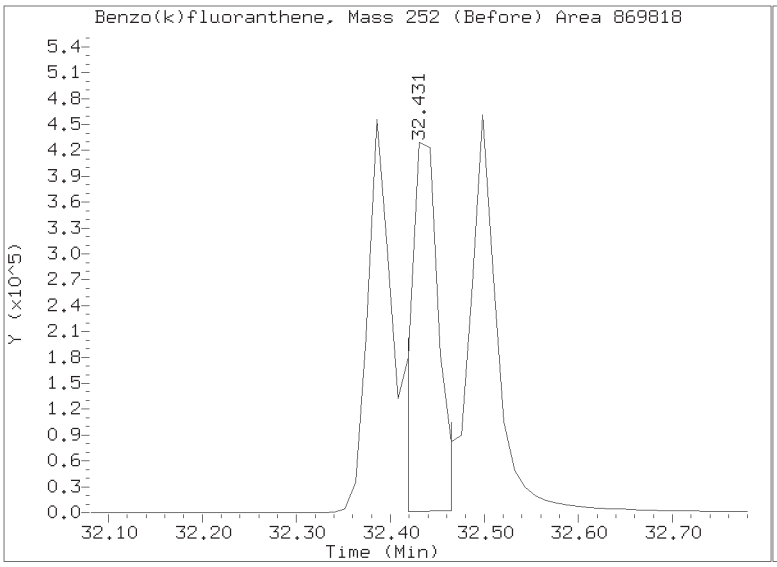
* Only compounds listed in the work order have been verified by the analyst *

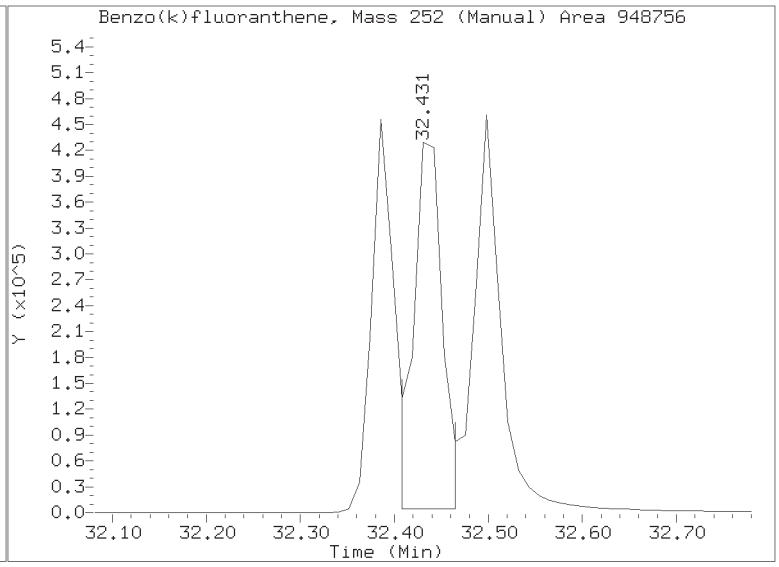
Quant Ion Manual Peak Adjustment Report

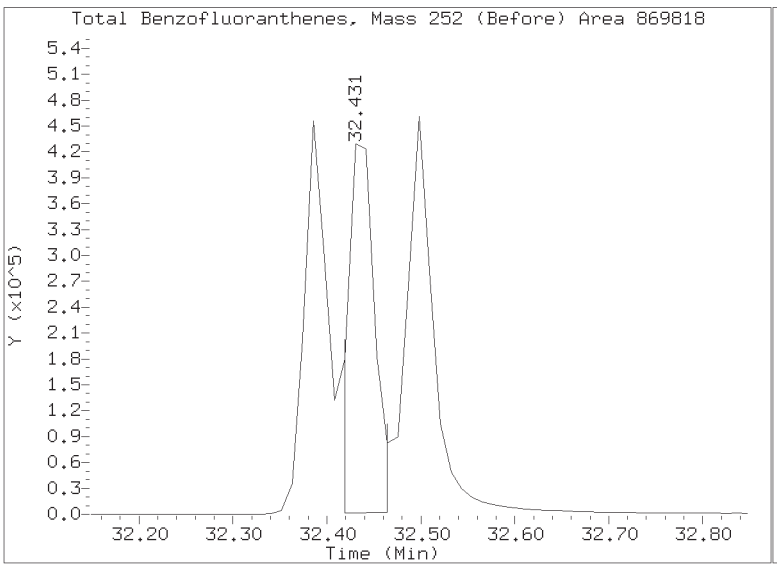
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043005.D
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18

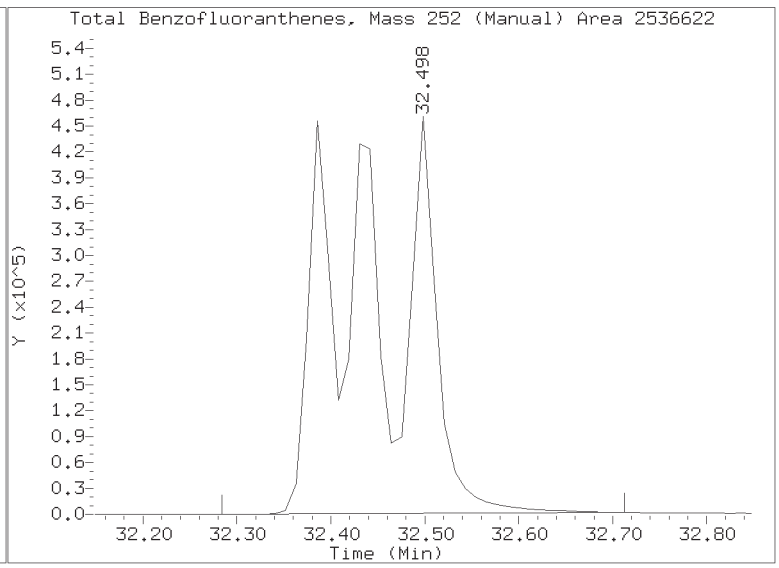












Quant Ion Manual Peak Adjustment Report

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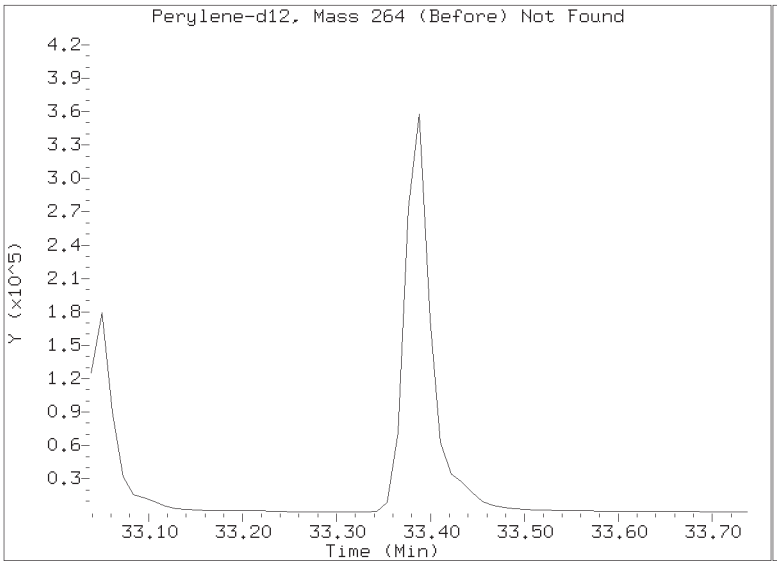
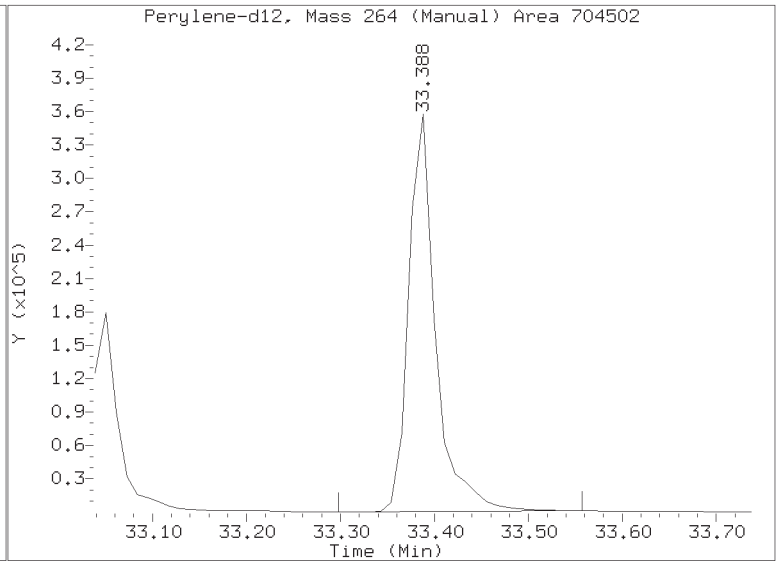
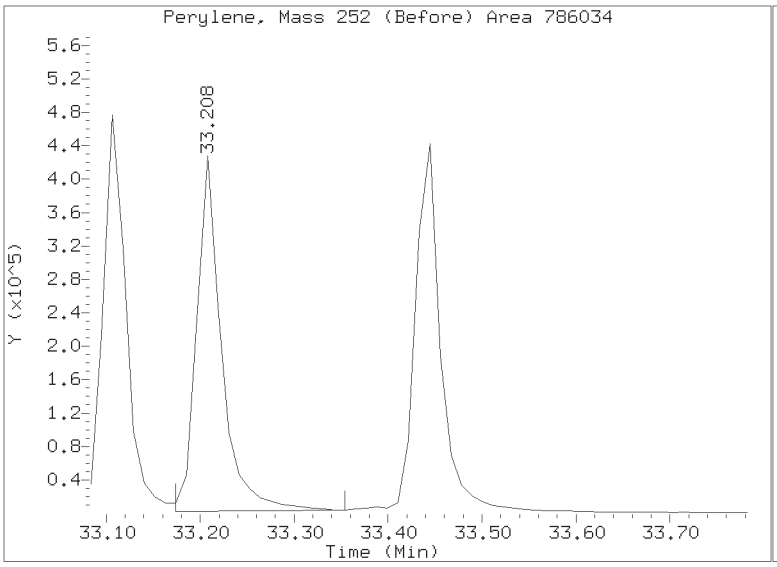
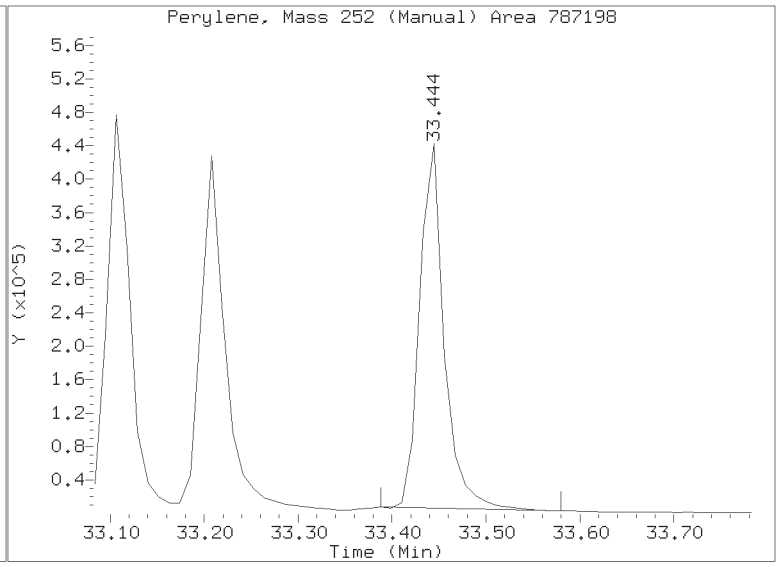
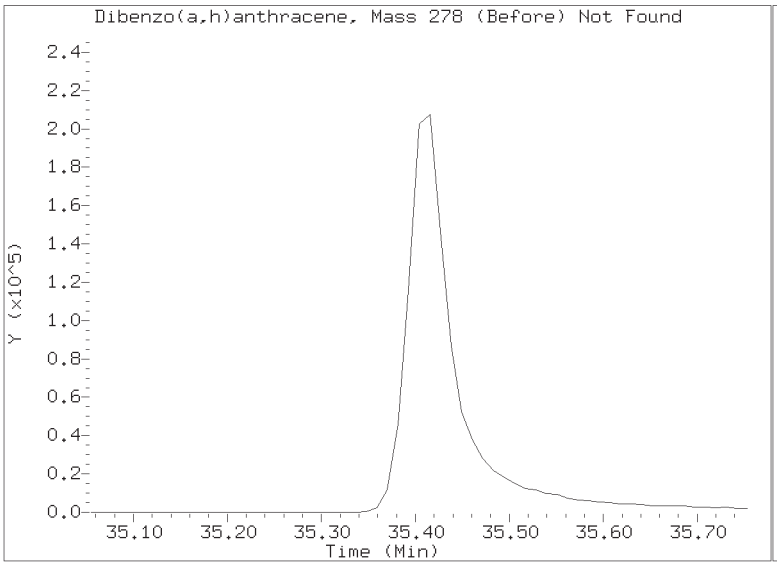
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18

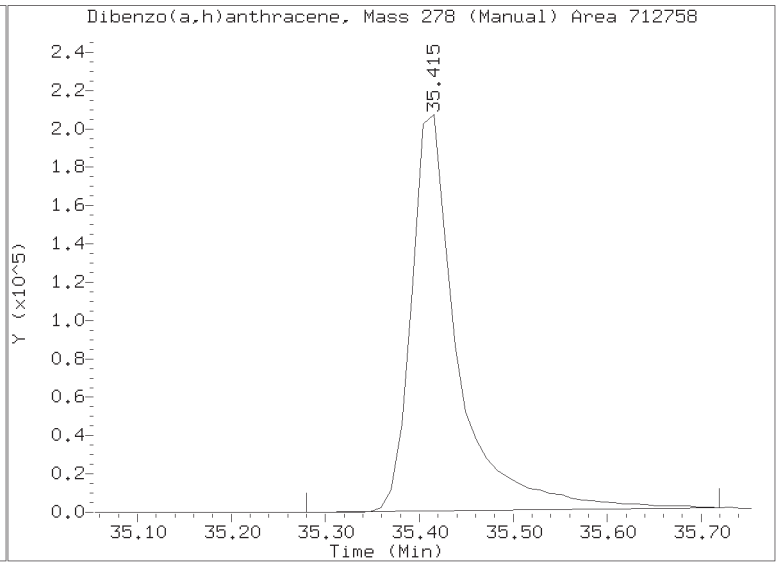






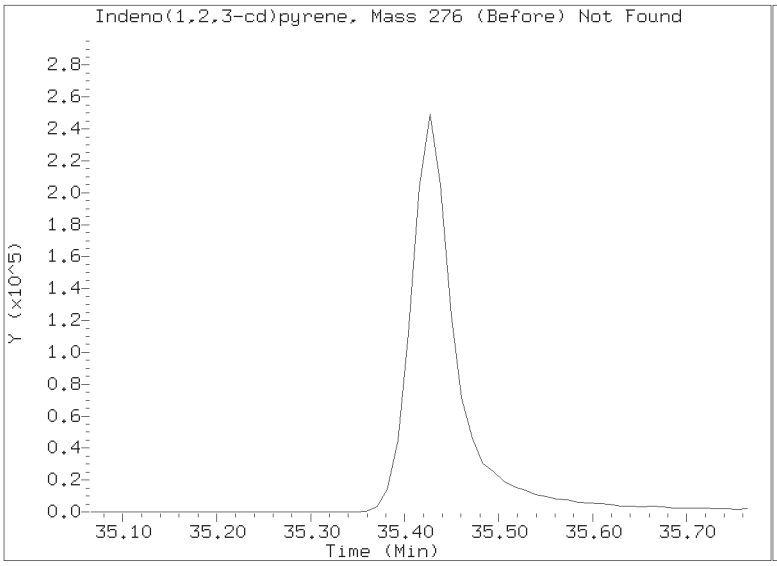


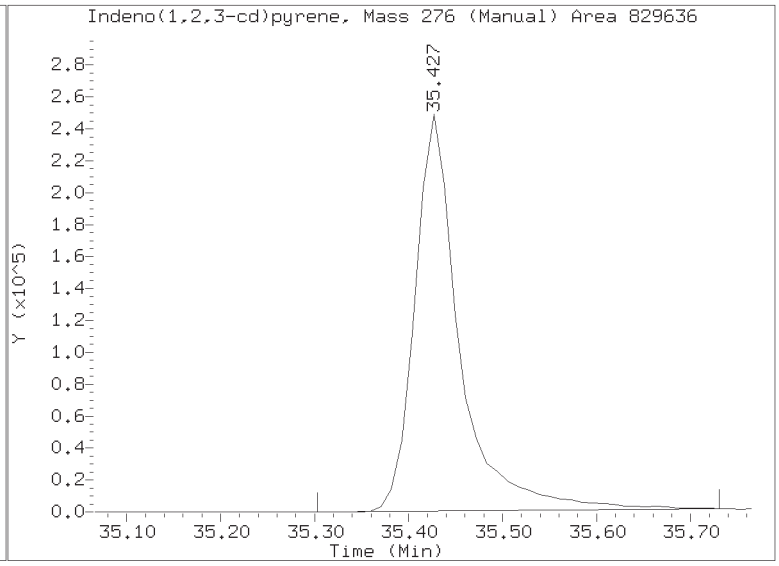


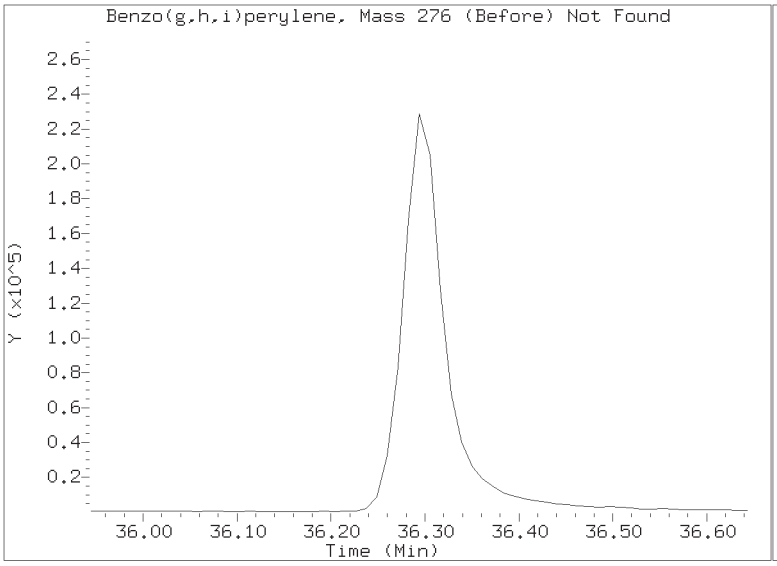


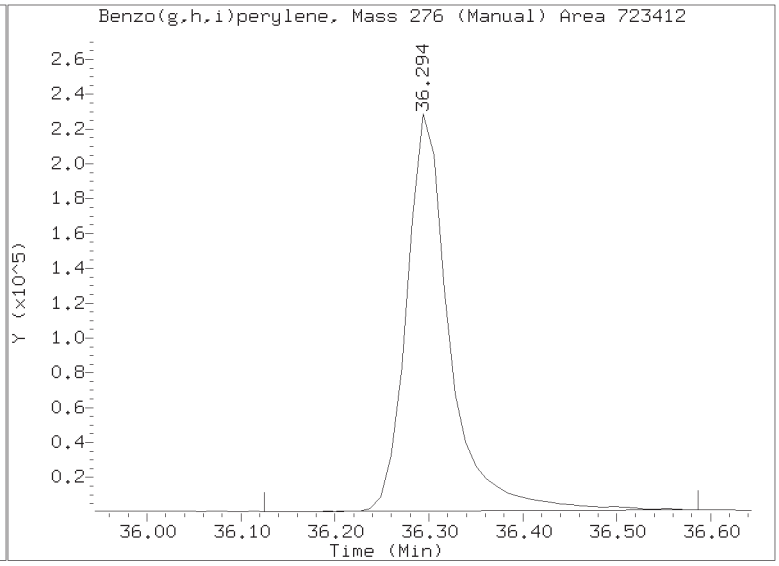
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043005.D
Injection Date: 30-APR-2021 10:19
Lab ID:SJD0305-CAL6 Client ID:
Report Date: 05/01/2021 09:18





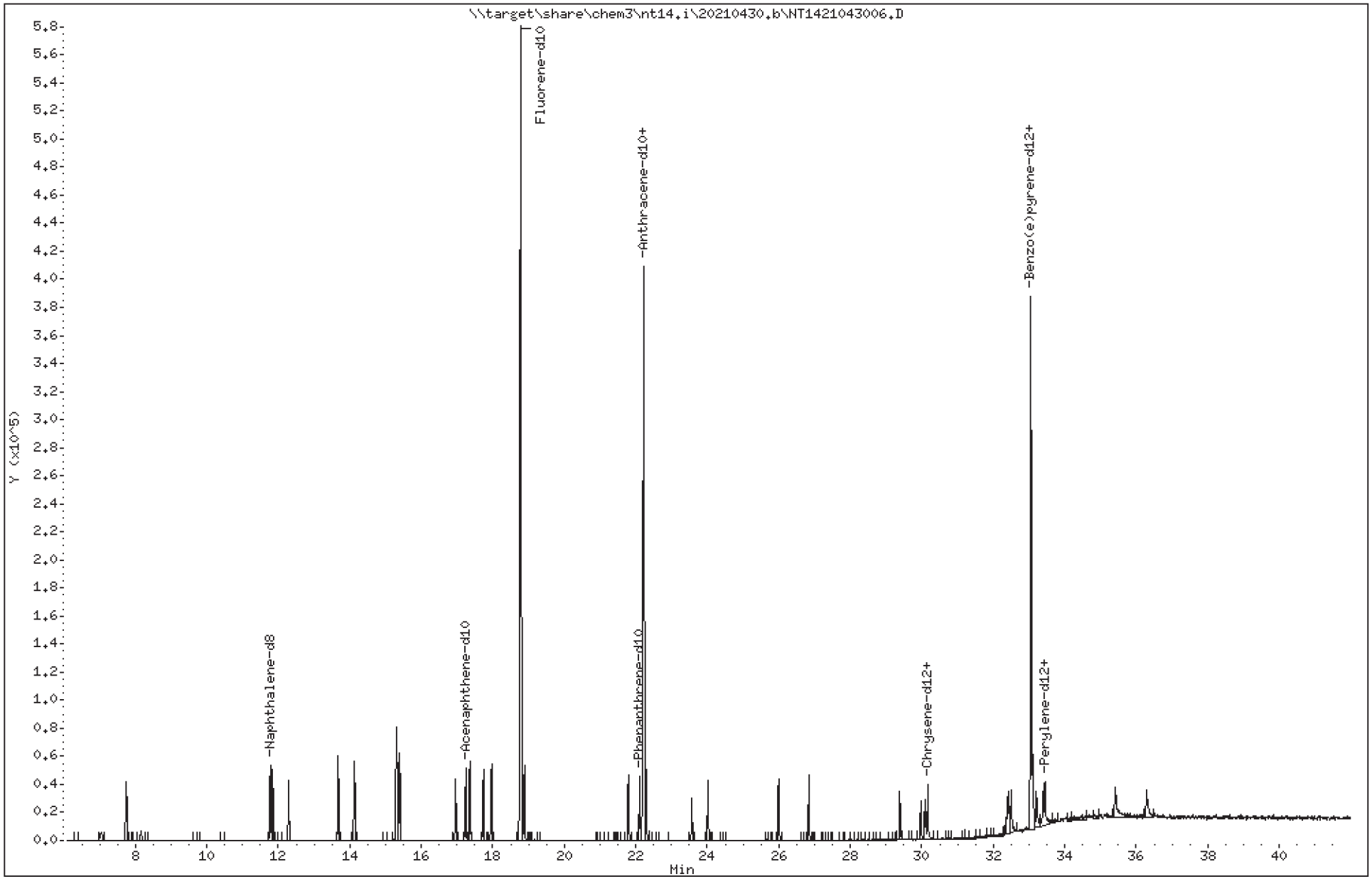




Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
Date : 30-APR-2021 11:07
Client ID:
Sample Info: SJD0305-CAL2

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043006.D
Lab Smp Id: SJD0305-CAL2
Inj Date : 30-APR-2021 11:07
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 6 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

							AMOUNTS	
		QUANT SIG					CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	1 trans-Decalin	138	7.055	7.035	(0.376)	9708	0.25000	0.2531
	2 cis-Decalin	138	8.165	8.165	(0.435)	6124	0.25000	0.2313
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	68964	0.25000	0.2321
	7 Naphthalene	128	11.836	11.846	(0.631)	71487	0.25000	0.2365
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	56259	0.25000	0.2340
	16 2-Methylnaphthalene	141	13.680	13.680	(0.729)	38479	0.25000	0.2386
	17 1-methylnaphthalene	141	14.131	14.131	(0.753)	36413	0.25000	0.2383
	18 Biphenyl	154	15.318	15.317	(0.816)	53734	0.25000	0.2328
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	36023	0.25000	0.2268
	20 Acenaphthylene	152	16.955	16.955	(0.903)	54377	0.25000	0.2175
$	21 Acenaphthene-d10	164	17.241	17.241	(0.919)	33181	0.25000	0.2287
	22 Acenaphthene	153	17.362	17.361	(0.925)	36700	0.25000	0.2284
	23 Dibenzofuran	168	17.735	17.735	(0.945)	56559	0.25000	0.2323
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	30138	0.25000	0.2162
*	25 Fluorene-d10	176	18.770	18.781	(1.000)	514907	2.00000	
	26 Fluorene	166	18.883	18.883	(1.006)	40026	0.25000	0.2262
	30 Dibenzothiophene	184	21.795	21.794	(1.161)	51045	0.25000	0.2286
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	48380	0.25000	0.2365
	36 Phenanthrene	178	22.179	22.190	(0.998)	56192	0.25000	0.2461
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	378499	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	51341	0.25000	0.2439
	42 Carbazole	167	23.565	23.565	(1.060)	33334	0.25000	0.1923
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	30887	0.25000	0.2228
	44 Fluoranthene	202	25.994	25.994	(1.170)	44340	0.25000	0.2186
	46 Pyrene	202	26.841	26.841	(1.208)	45747	0.25000	0.2177
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	43831	0.25000	0.2140
	55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	32694	0.25000	0.1912
$	56 Chrysene-d12	240	30.088	30.087	(0.910)	30886	0.25000	0.2203
	57 Chrysene	228	30.166	30.166	(0.913)	41552	0.25000	0.2306
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	29358	0.25000	0.1854(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	37291	0.25000	0.1927(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	38566	0.25000	0.2101(M)
	246 Total Benzofluoranthenes	252	32.430	32.497	(0.981)	105389	0.75000	0.6005(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	385845	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	37405	0.25000	0.2276
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	26806	0.25000	0.1607
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	28031	0.25000	0.1913
68 Perylene	252	33.444	33.433	(1.012)	35497	0.25000	0.2262
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	30872	0.25000	0.1825(M)
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	22910	0.25000	0.1574(M)
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	39392	0.25000	0.2664(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043006.D
Lab Smp Id: SJD0305-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	514907	22.46
250 Anthracene-d10	381033	190517	762066	378499	-0.67
251 Benzo(e)pyrene-d1	370998	185499	741996	385845	4.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.77	-0.06
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043006.D

Lab ID: SJD0305-CAL2
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 11:07

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

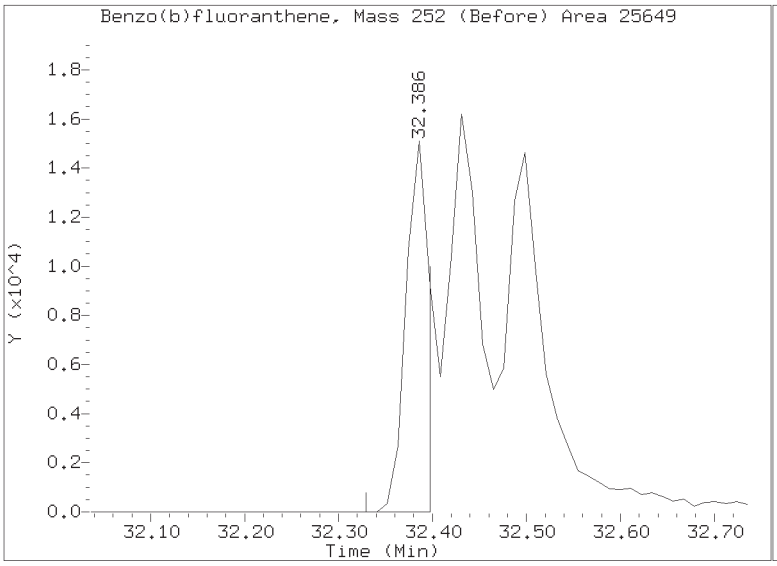
RRT check based on Ccal File: NT1421043009.D

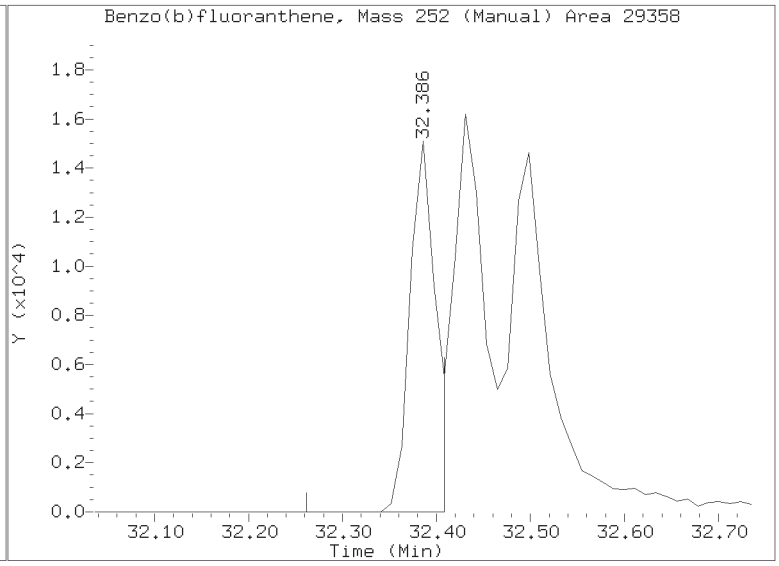
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

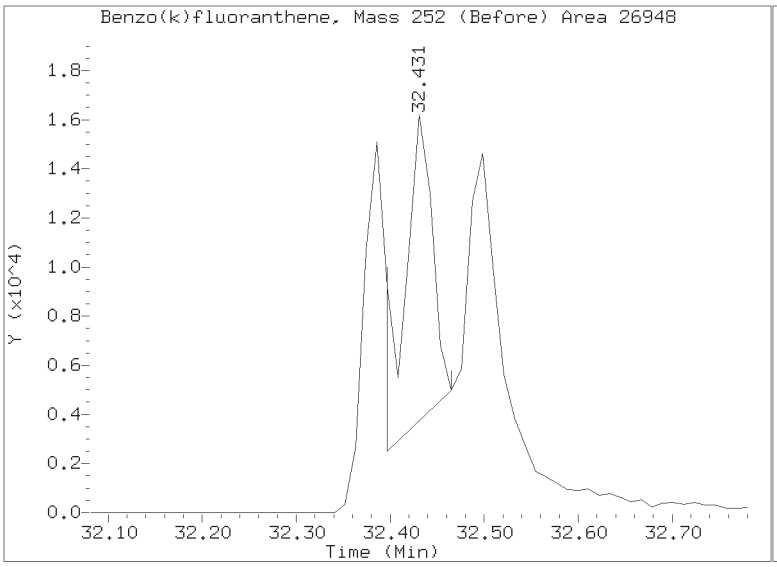
* Only compounds listed in the work order have been verified by the analyst *

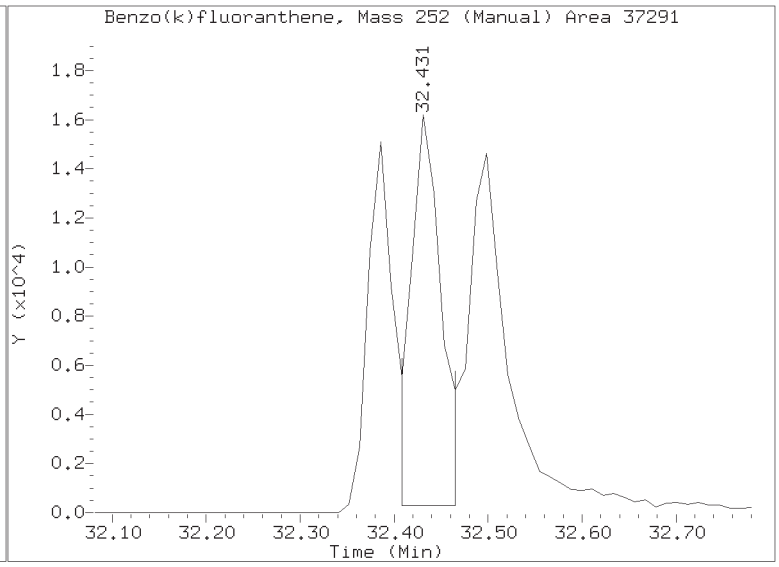
Quant Ion Manual Peak Adjustment Report

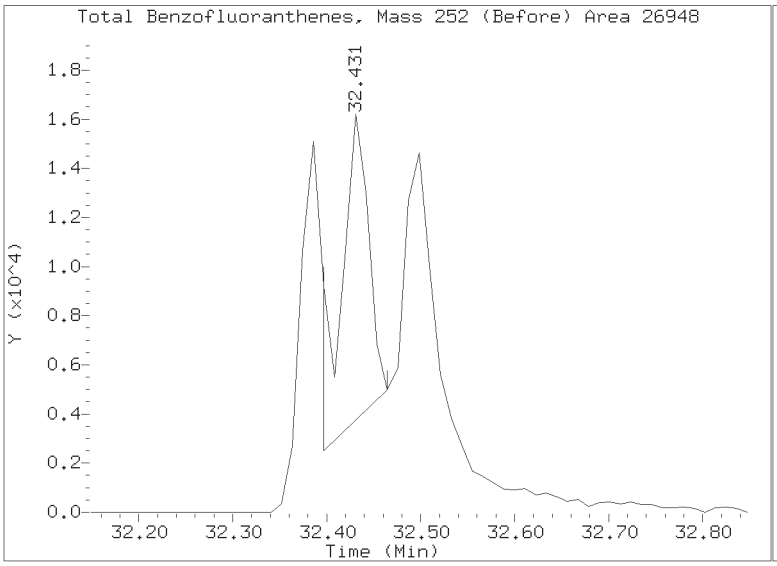
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18

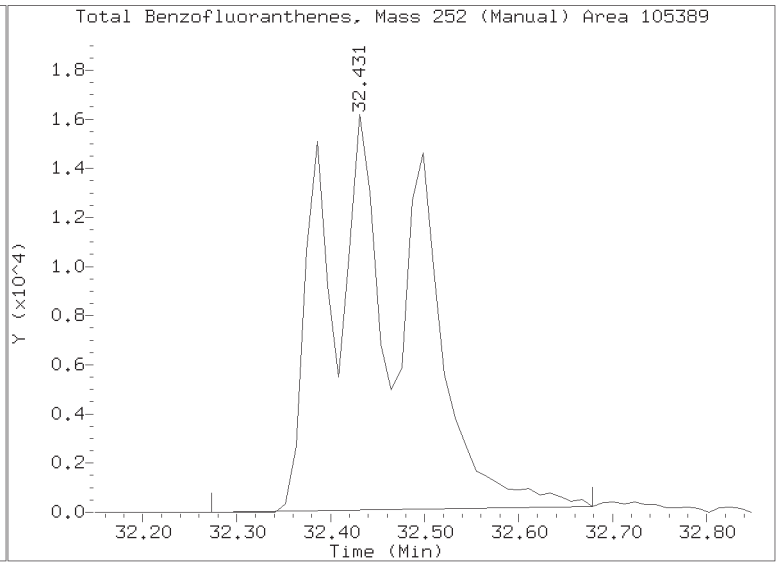












Quant Ion Manual Peak Adjustment Report

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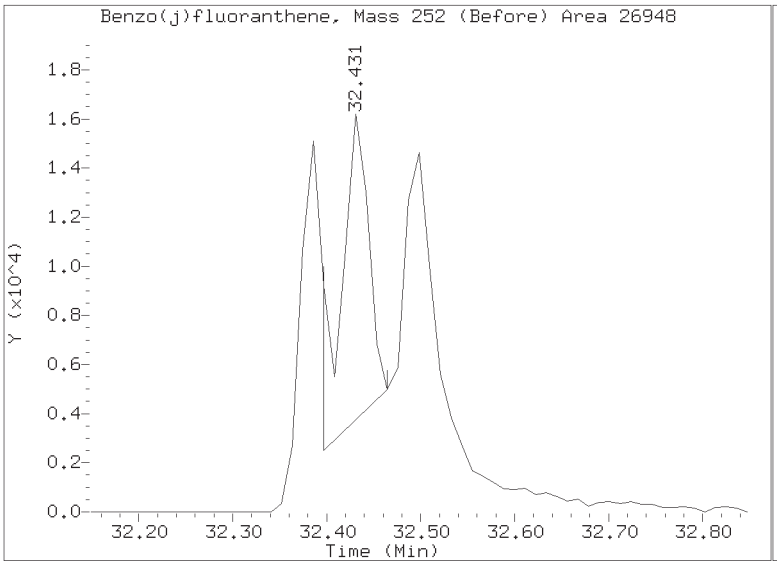
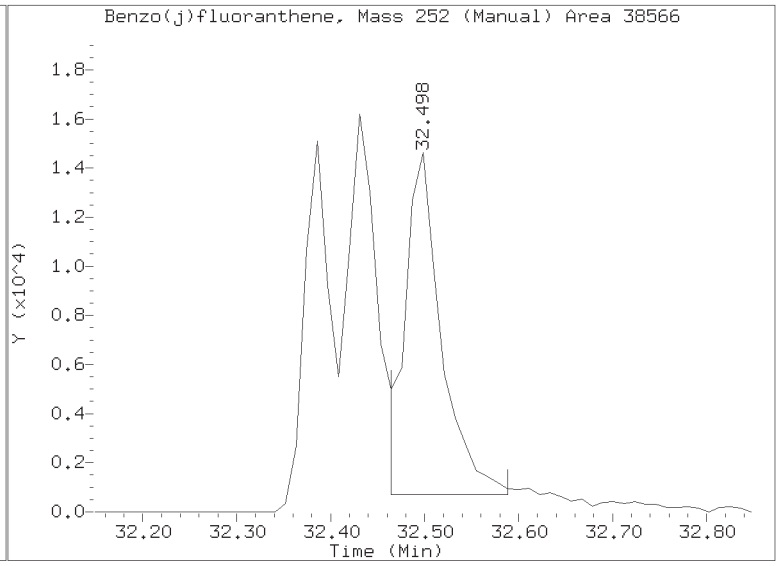
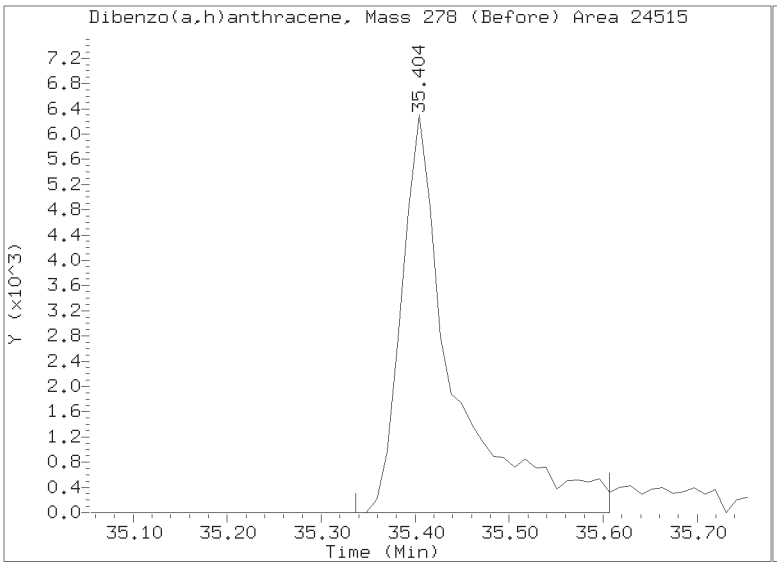
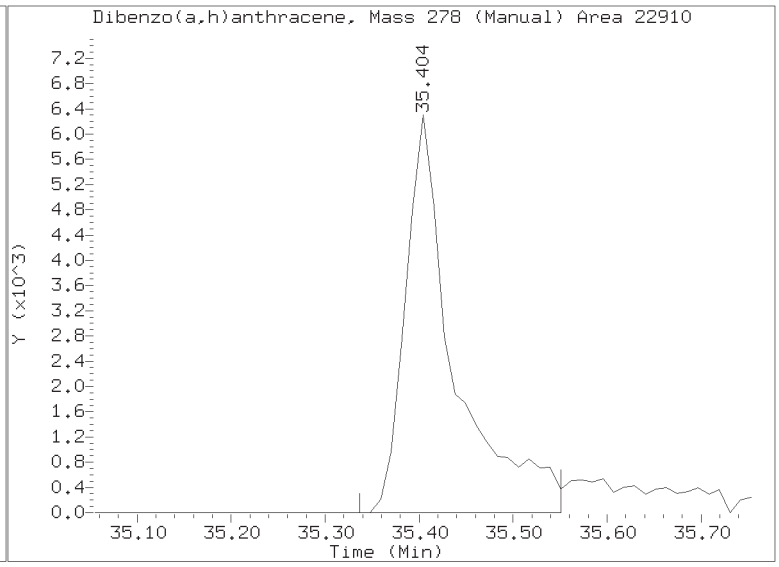
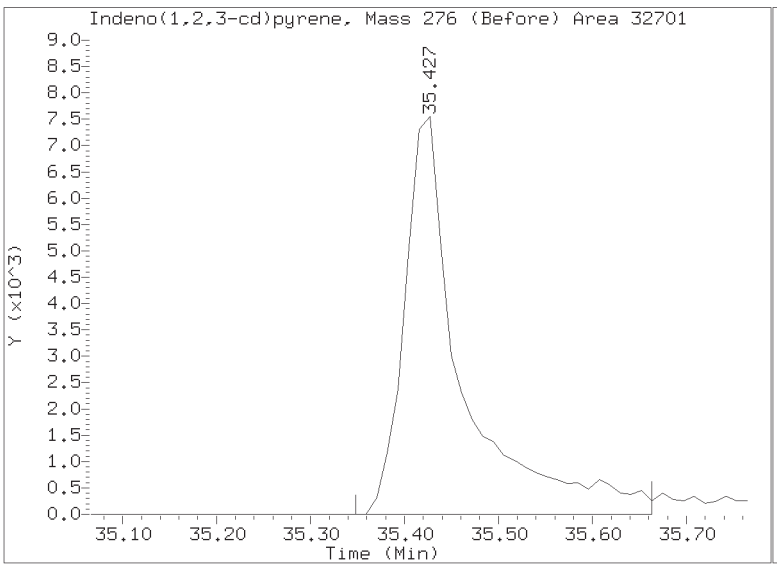
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18

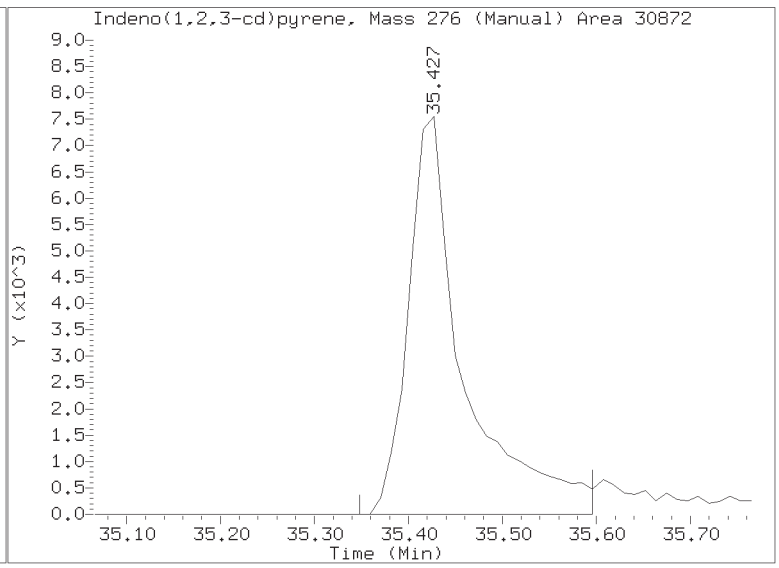






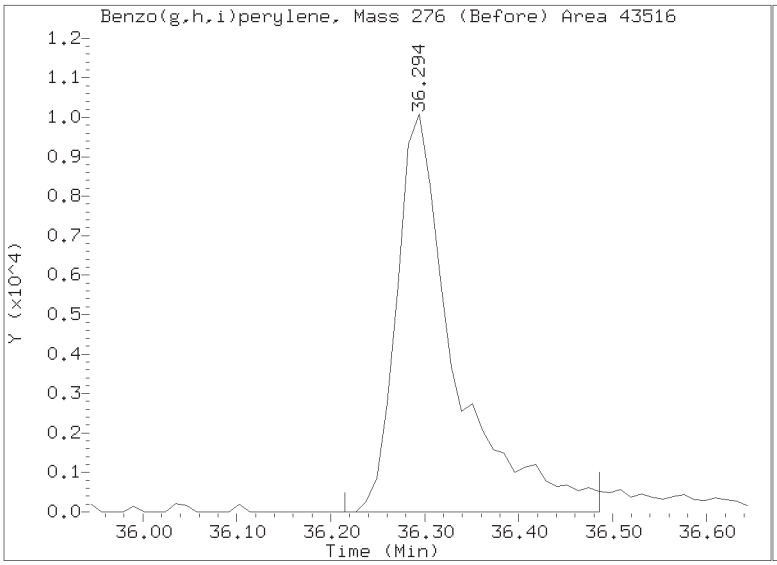


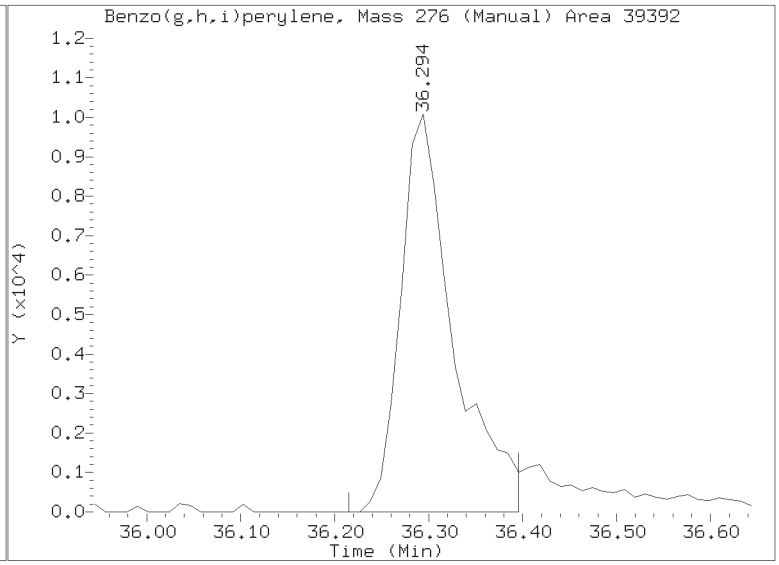




Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043006.D
Injection Date: 30-APR-2021 11:07
Lab ID:SJD0305-CAL2 Client ID:
Report Date: 05/01/2021 09:18

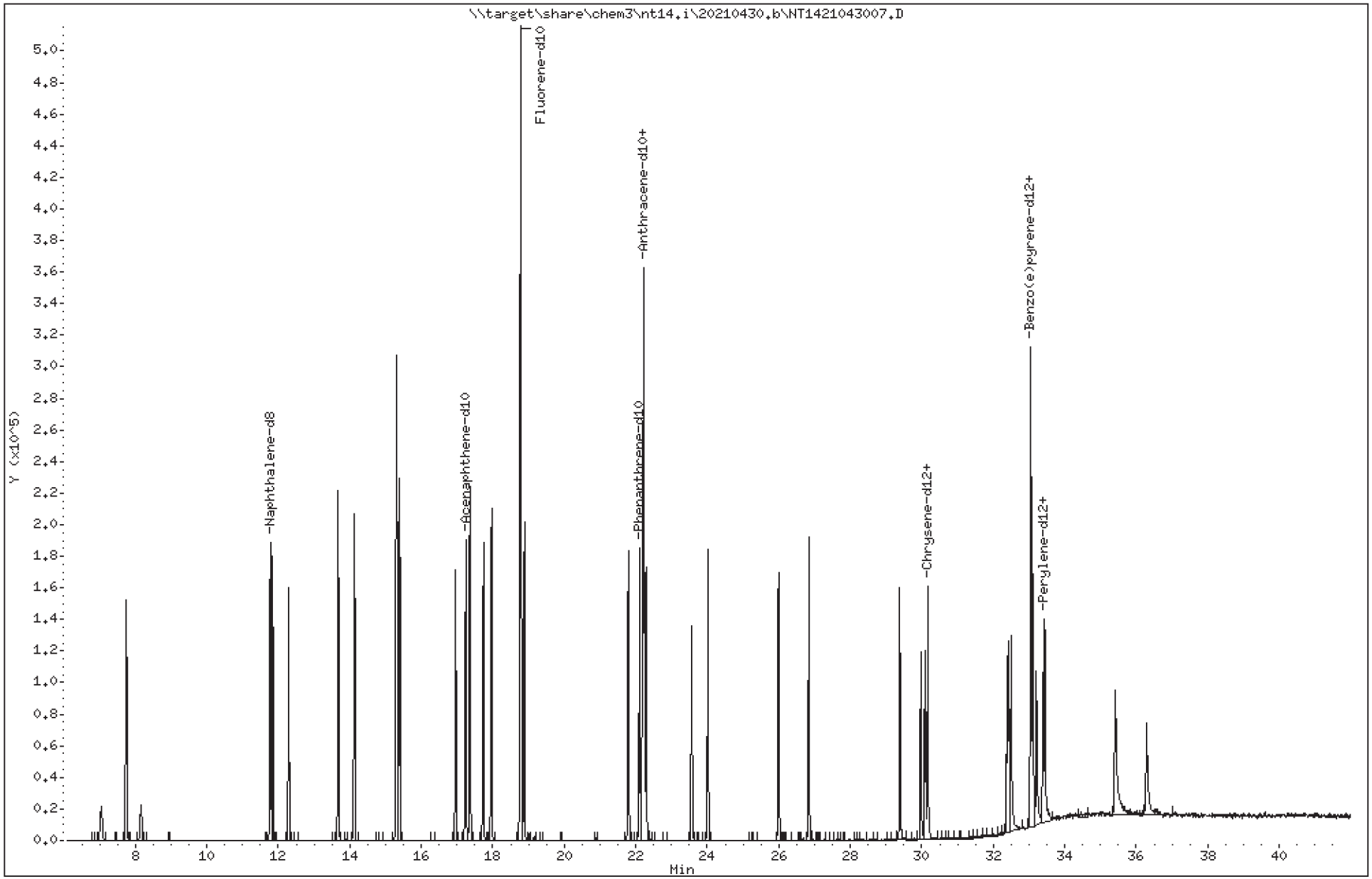




Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
Date : 30-APR-2021 11:55
Client ID:
Sample Info: SJD0305-CAL4

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043007.D
Lab Smp Id: SJD0305-CAL4
Inj Date : 30-APR-2021 11:55
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL4
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 7 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	31616	1.00000	0.9522
	2 cis-Decalin	138	8.155	8.165	(0.434)	21957	1.00000	0.9579
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	250476	1.00000	0.9738
	7 Naphthalene	128	11.836	11.846	(0.630)	252112	1.00000	0.9636
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	200714	1.00000	0.9642
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	137675	1.00000	0.9861
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	130443	1.00000	0.9860
	18 Biphenyl	154	15.318	15.317	(0.816)	194780	1.00000	0.9748
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	133998	1.00000	0.9745
	20 Acenaphthylene	152	16.955	16.955	(0.903)	203985	1.00000	0.9427
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	120873	1.00000	0.9624
	22 Acenaphthene	153	17.362	17.361	(0.924)	137247	1.00000	0.9869
	23 Dibenzofuran	168	17.735	17.735	(0.944)	204939	1.00000	0.9725
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	115219	1.00000	0.9548
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	445719	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	147613	1.00000	0.9639
	30 Dibenzothiophene	184	21.795	21.794	(1.160)	185025	1.00000	0.9571
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	182607	1.00000	1.028
	36 Phenanthrene	178	22.179	22.190	(0.998)	204303	1.00000	1.030
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	328813	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	185441	1.00000	1.014
	42 Carbazole	167	23.565	23.565	(1.060)	136890	1.00000	0.9031
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	122111	1.00000	1.014
	44 Fluoranthene	202	25.994	25.994	(1.170)	176849	1.00000	1.004
	46 Pyrene	202	26.841	26.841	(1.208)	182996	1.00000	1.002
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	205472	1.00000	1.155
	55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	138453	1.00000	0.9054
$	56 Chrysene-d12	240	30.088	30.087	(0.910)	129960	1.00000	1.048
	57 Chrysene	228	30.166	30.166	(0.913)	157272	1.00000	0.9863
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	118787	1.00000	0.8395(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	150364	1.00000	0.8697(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	178828	1.00000	1.101
	246 Total Benzofluoranthenes	252	32.430	32.497	(0.981)	424060	3.00000	2.709(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	341443	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	141213	1.00000	0.9710
66 Benzo(a)pyrene	252	33.208	33.208	(1.005)	123458	1.00000	0.8332
$ 67 Perylene-d12	264	33.376	33.388	(1.010)	115884	1.00000	0.8876
68 Perylene	252	33.433	33.433	(1.012)	130388	1.00000	0.9387(M)
69 Indeno(1,2,3-cd)pyrene	276	35.415	35.415	(1.072)	127734	1.00000	0.8451(M)
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	100665	1.00000	0.7738
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	119725	1.00000	0.9151

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043007.D
Lab Smp Id: SJD0305-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	445719	6.01
250 Anthracene-d10	381033	190517	762066	328813	-13.70
251 Benzo(e)pyrene-d1	370998	185499	741996	341443	-7.97

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043007.D

Lab ID: SJD0305-CAL4
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 11:55

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

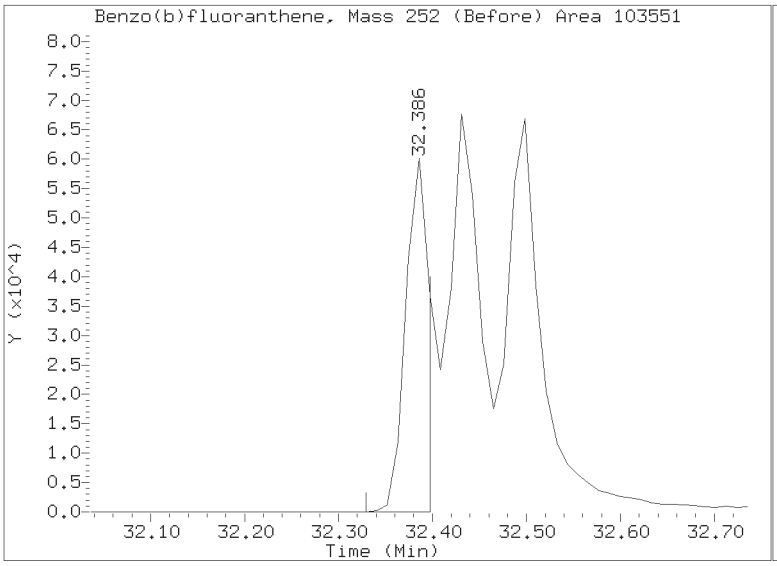
RRT check based on Ccal File: NT1421043009.D

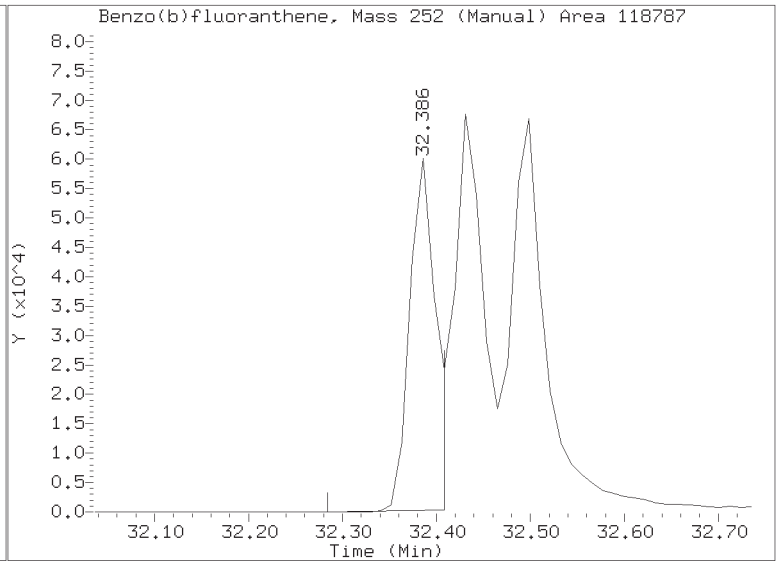
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

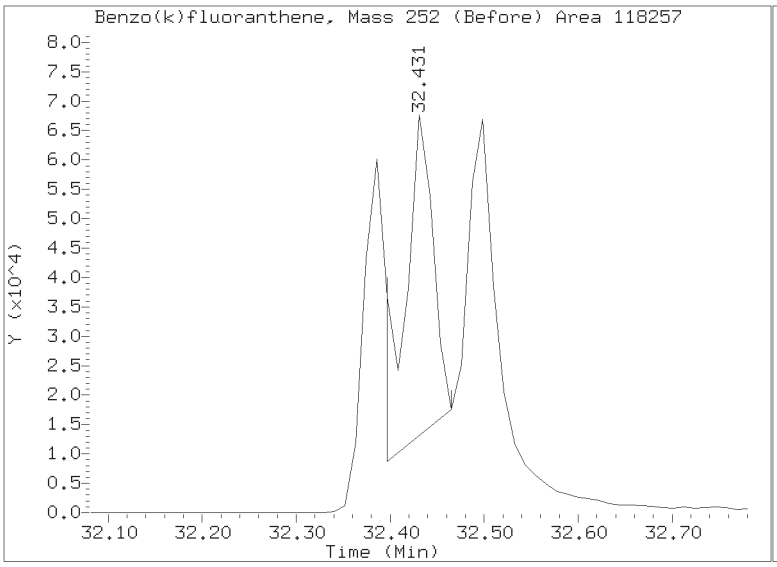
* Only compounds listed in the work order have been verified by the analyst *

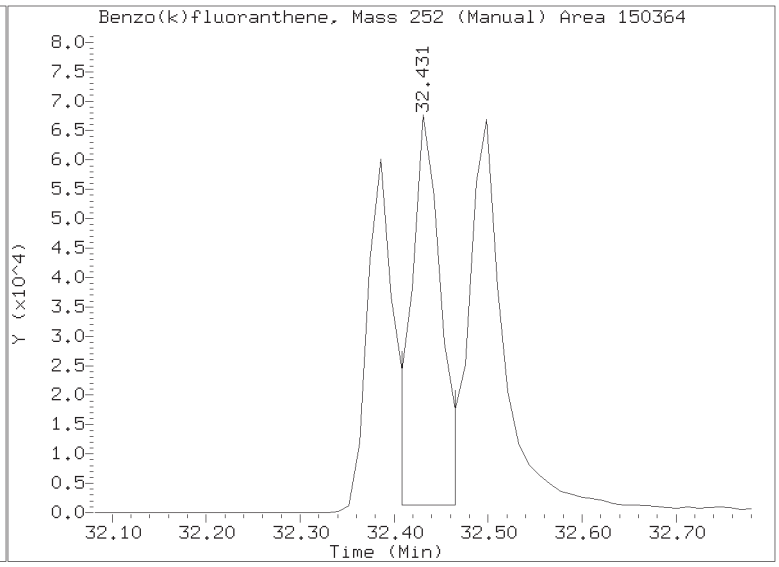
Quant Ion Manual Peak Adjustment Report

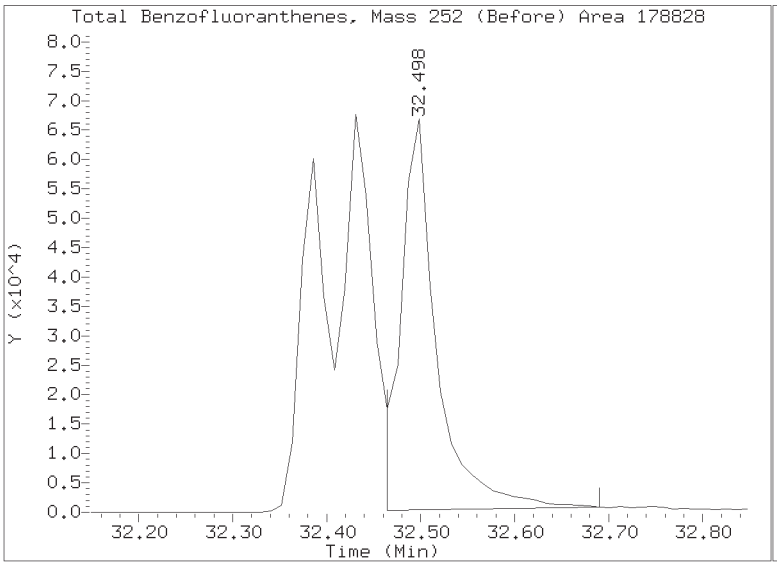
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043007.D
Injection Date: 30-APR-2021 11:55
Lab ID:SJD0305-CAL4 Client ID:
Report Date: 05/01/2021 09:18

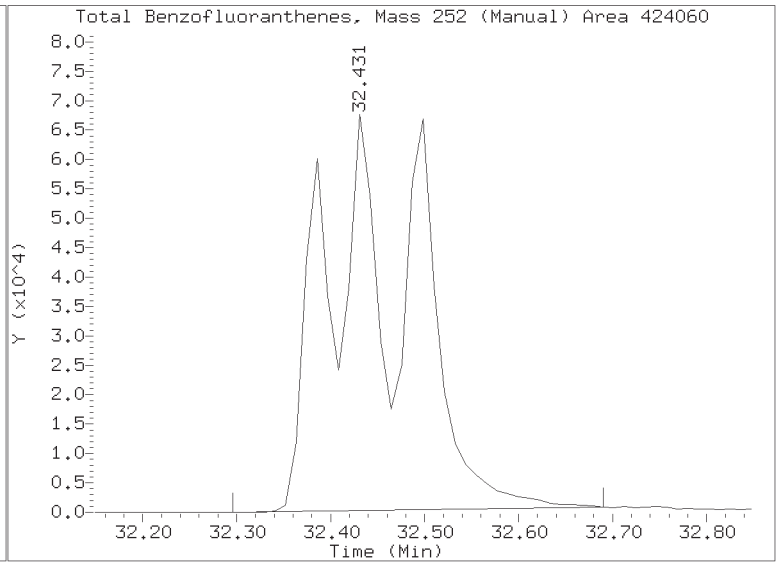






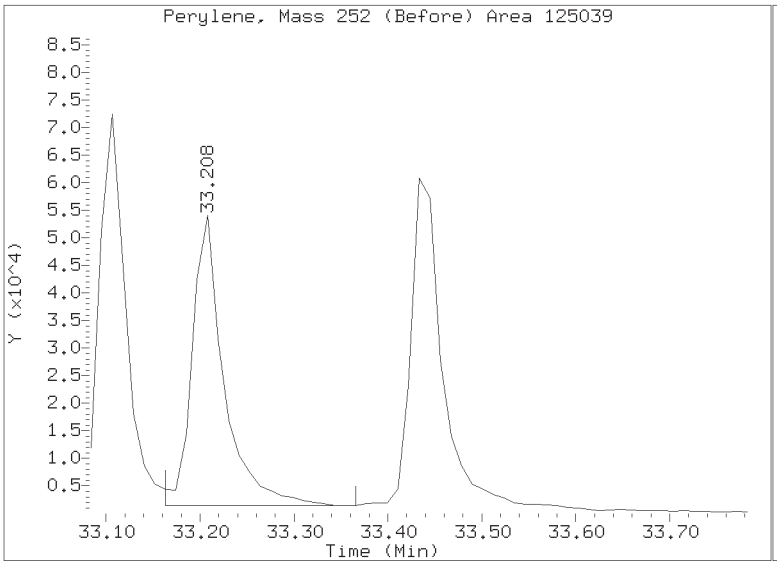


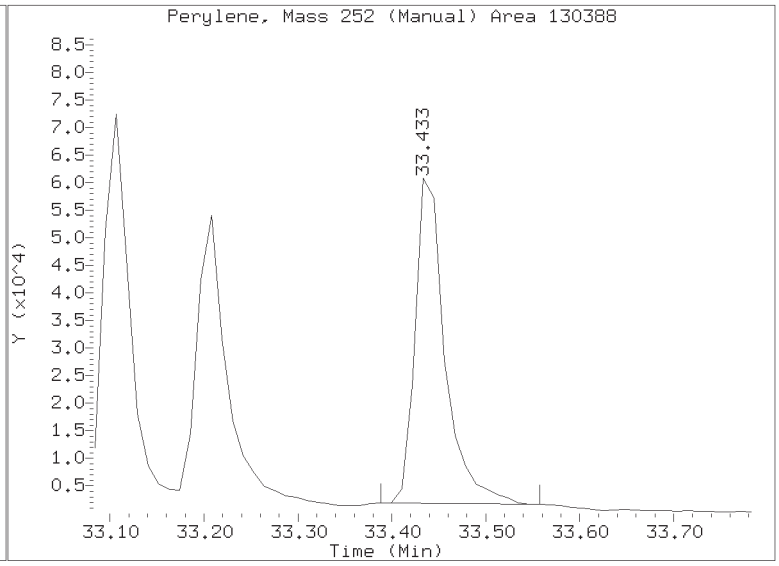


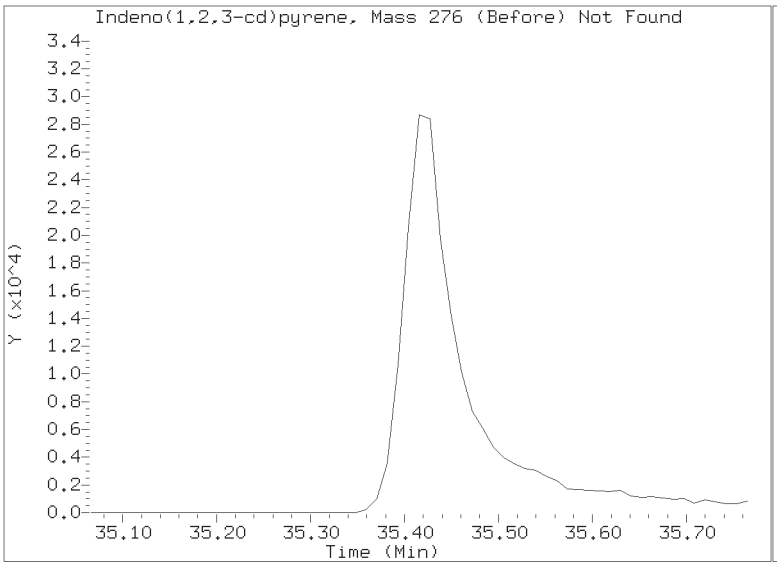


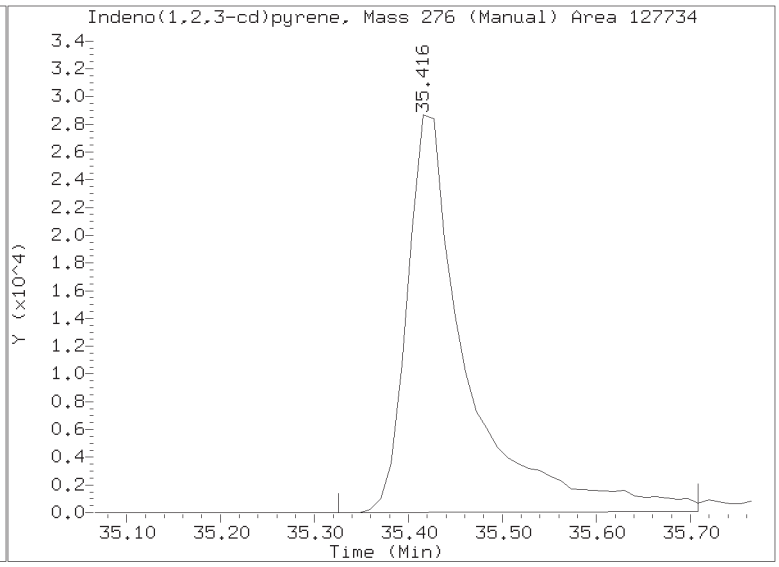
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043007.D
Injection Date: 30-APR-2021 11:55
Lab ID:SJD0305-CAL4 Client ID:
Report Date: 05/01/2021 09:18









ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043008.D
Lab Smp Id: SJD0305-CAL3
Inj Date : 30-APR-2021 12:43
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL3
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 8 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.035	7.035	(0.375)	14802	0.50000	0.5381
	2 cis-Decalin	138	8.155	8.165	(0.434)	11405	0.50000	0.6006
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	119203	0.50000	0.5594
	7 Naphthalene	128	11.846	11.846	(0.631)	123533	0.50000	0.5699
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	98335	0.50000	0.5702
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	64402	0.50000	0.5568
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	62207	0.50000	0.5676
	18 Biphenyl	154	15.317	15.317	(0.816)	95281	0.50000	0.5756
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	65011	0.50000	0.5707
	20 Acenaphthylene	152	16.955	16.955	(0.903)	93852	0.50000	0.5235
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	56529	0.50000	0.5433
	22 Acenaphthene	153	17.361	17.361	(0.924)	62714	0.50000	0.5443
	23 Dibenzofuran	168	17.735	17.735	(0.944)	95496	0.50000	0.5470
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	53321	0.50000	0.5334
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	369261	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	68557	0.50000	0.5404
	30 Dibenzothiophene	184	21.794	21.794	(1.160)	85465	0.50000	0.5336
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	83170	0.50000	0.4878
	36 Phenanthrene	178	22.190	22.190	(0.999)	92468	0.50000	0.4858
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	315516	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	86413	0.50000	0.4925
	42 Carbazole	167	23.564	23.565	(1.060)	56745	0.50000	0.3920
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	55496	0.50000	0.4802
	44 Fluoranthene	202	25.994	25.994	(1.170)	73951	0.50000	0.4374
	46 Pyrene	202	26.841	26.841	(1.208)	78910	0.50000	0.4504
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	82968	0.50000	0.4860
	55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	58891	0.50000	0.4082
$	56 Chrysene-d12	240	30.088	30.087	(0.910)	57001	0.50000	0.4834
	57 Chrysene	228	30.166	30.166	(0.913)	76107	0.50000	0.5022
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	50224	0.50000	0.3761(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	66116	0.50000	0.4051(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	71063	0.50000	0.4604(M)
	246 Total Benzofluoranthenes	252	32.498	32.497	(0.983)	173318	1.50000	1.172(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	324493	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	63129	0.50000	0.4568
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	53980	0.50000	0.3844
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	51107	0.50000	0.4139
68 Perylene	252	33.433	33.433	(1.012)	57356	0.50000	0.4345(M)
69 Indeno(1,2,3-cd)pyrene	276	35.426	35.415	(1.072)	53440	0.50000	0.3745
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	42830	0.50000	0.3488
74 Benzo(g,h,i)perylene	276	36.294	36.293	(1.098)	58503	0.50000	0.4705

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043008.D
Lab Smp Id: SJD0305-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	369261	-12.18
250 Anthracene-d10	381033	190517	762066	315516	-17.19
251 Benzo(e)pyrene-d1	370998	185499	741996	324493	-12.54

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043008.D

Lab ID: SJD0305-CAL3
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 12:43

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

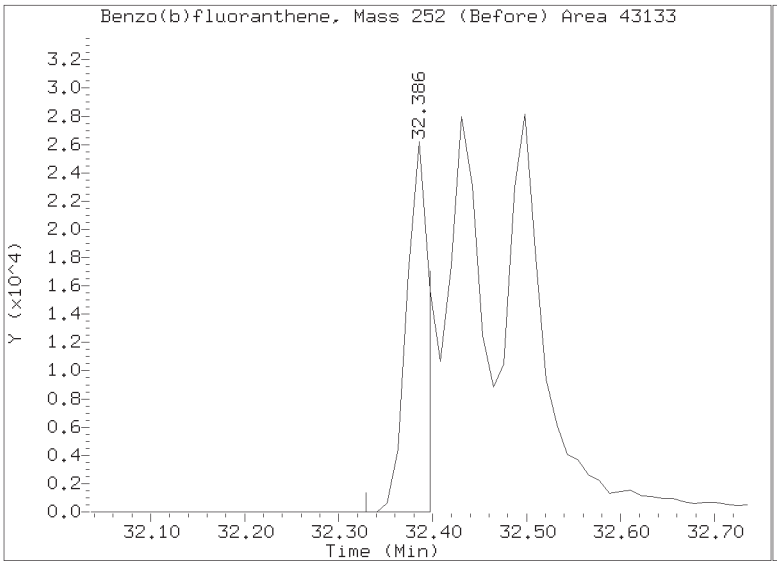
RRT check based on Ccal File: NT1421043009.D

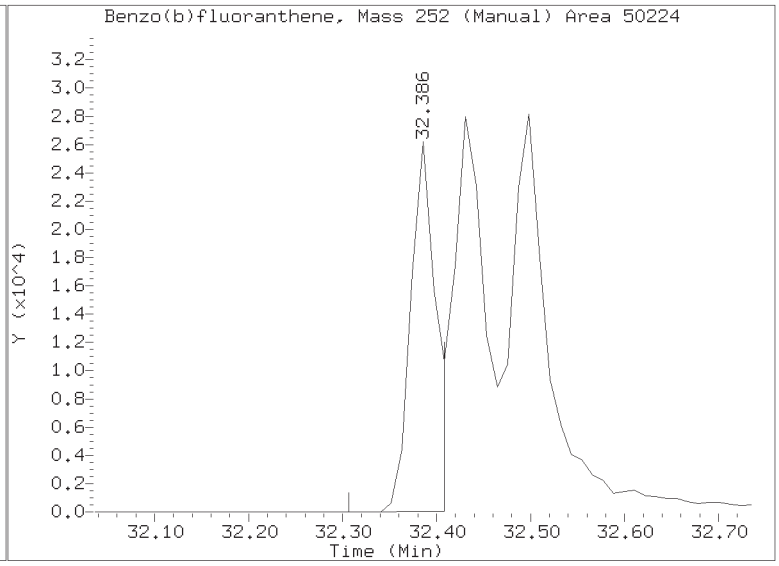
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

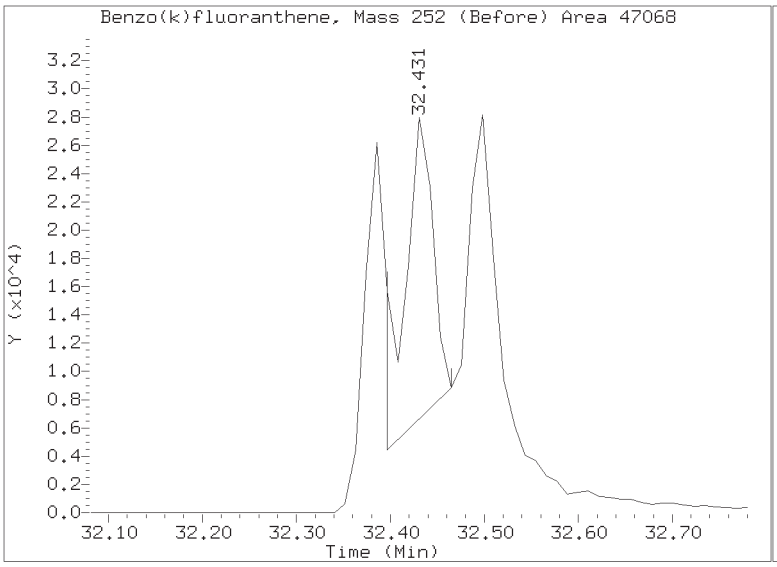
* Only compounds listed in the work order have been verified by the analyst *

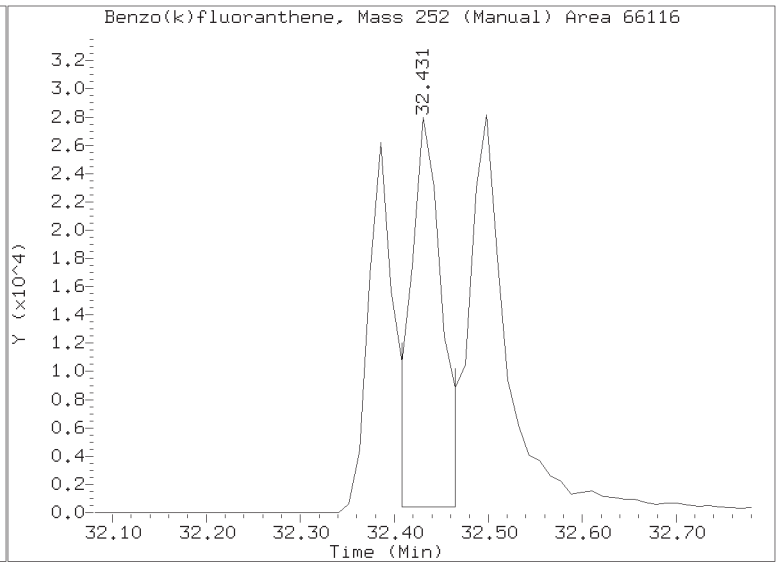
Quant Ion Manual Peak Adjustment Report

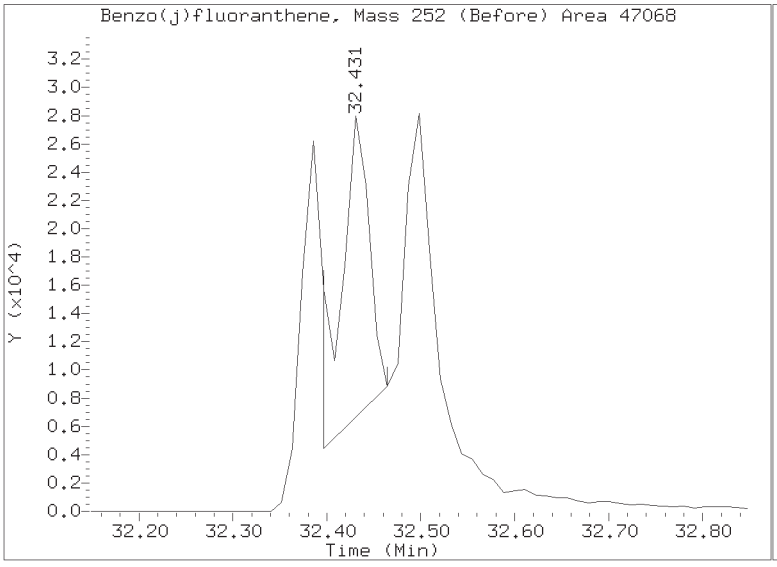
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D
Injection Date: 30-APR-2021 12:43
Lab ID:SJD0305-CAL3 Client ID:
Report Date: 05/01/2021 09:18

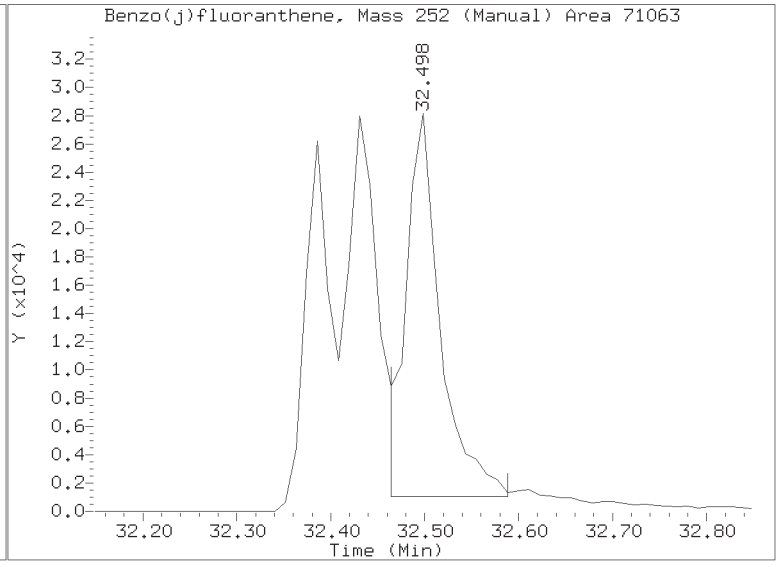






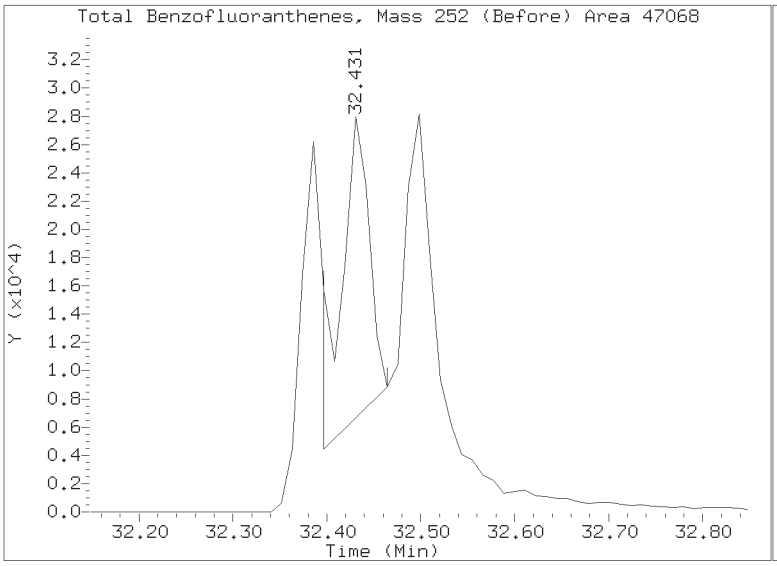


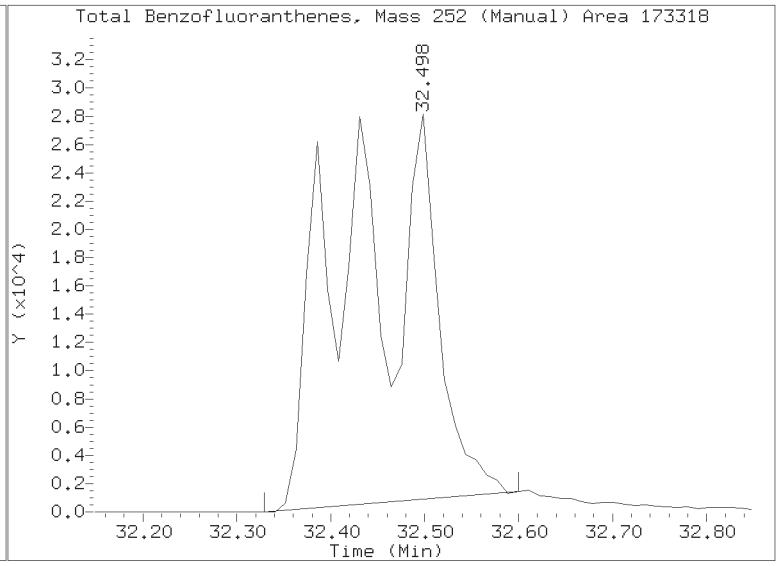


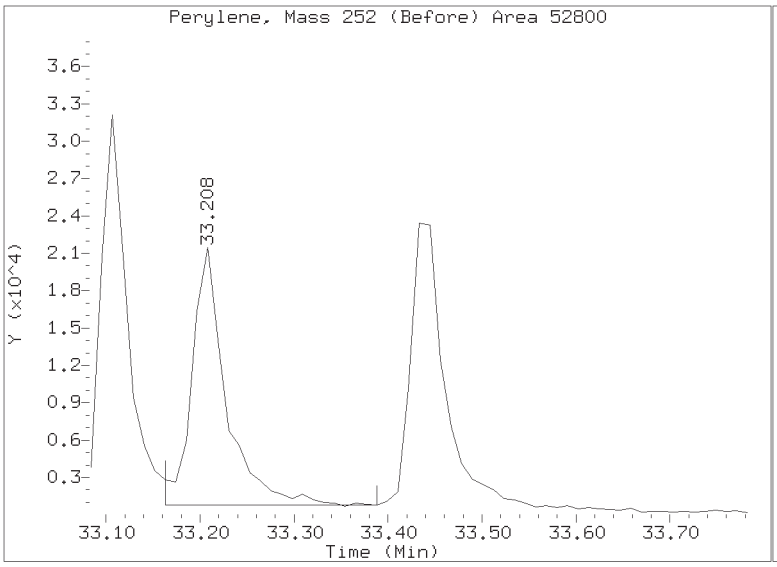


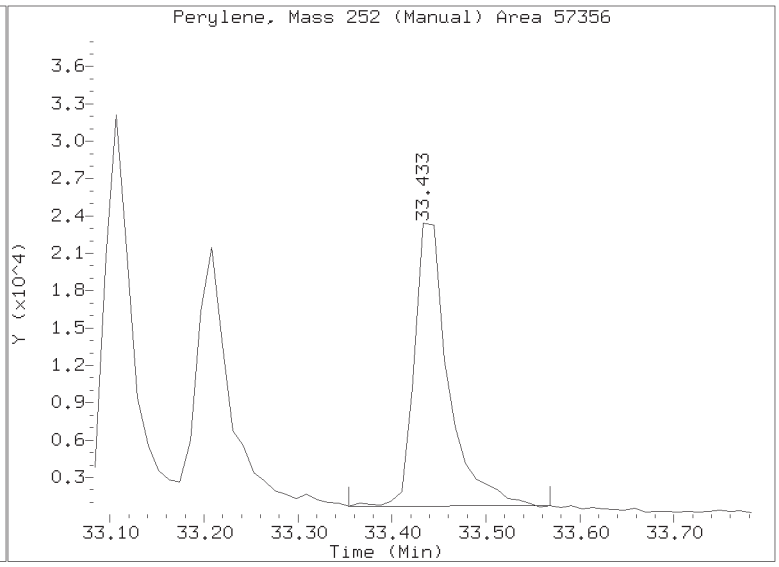
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043008.D
Injection Date: 30-APR-2021 12:43
Lab ID:SJD0305-CAL3 Client ID:
Report Date: 05/01/2021 09:18









Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D

Date : 30-APR-2021 13:32

Client ID:

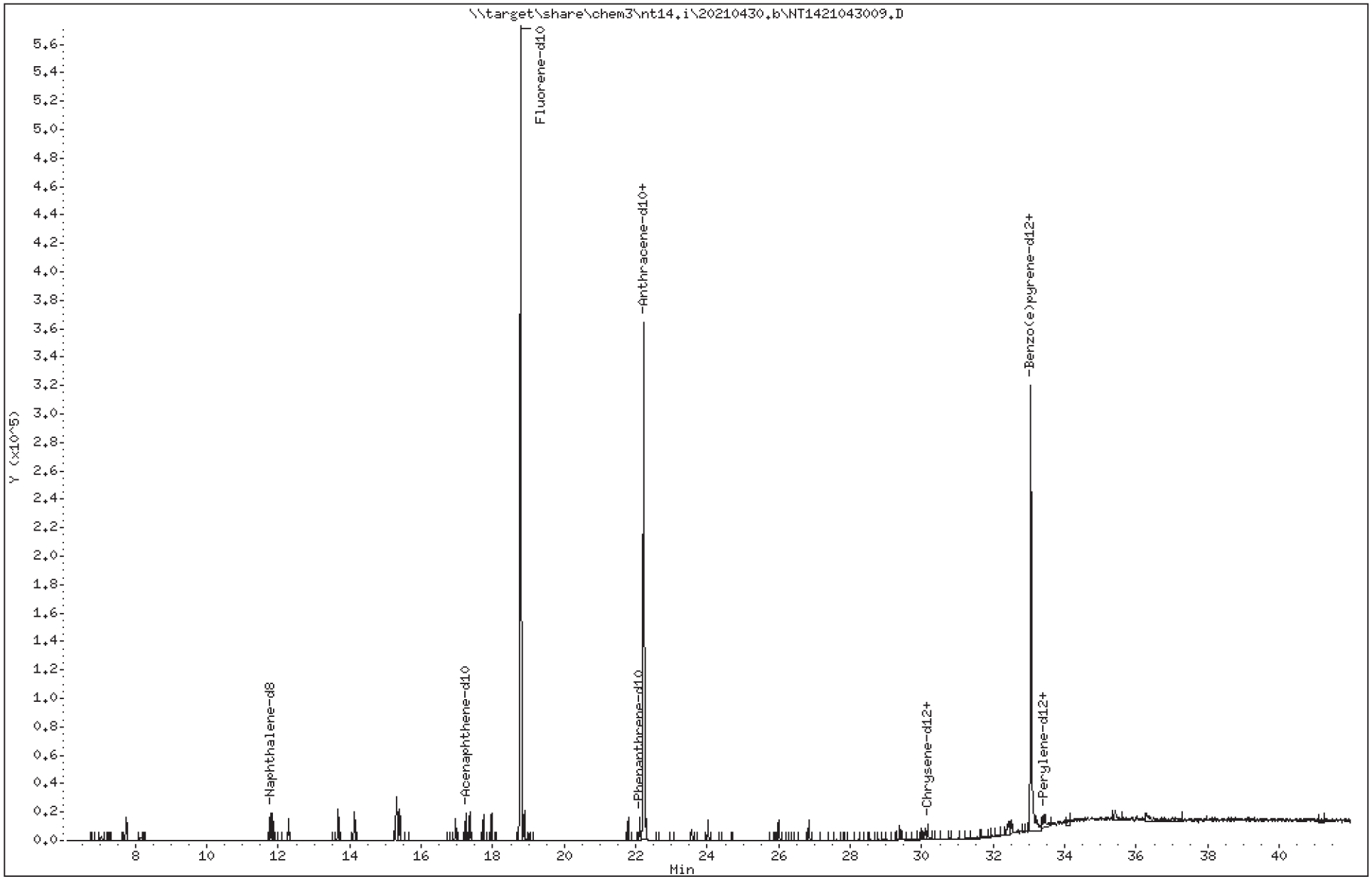
Instrument: nt14.i

Sample Info: SJD0305-CAL1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043009.D
Lab Smp Id: SJD0305-CAL1
Inj Date : 30-APR-2021 13:32
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CAL1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 4 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.035	7.035	(0.375)	3606	0.10000	0.1025
	2 cis-Decalin	138	8.165	8.165	(0.435)	2333	0.10000	0.09608
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	26311	0.10000	0.09656
	7 Naphthalene	128	11.846	11.846	(0.631)	26657	0.10000	0.09618
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	20802	0.10000	0.09434
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	13671	0.10000	0.09243
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	13079	0.10000	0.09333
	18 Biphenyl	154	15.317	15.317	(0.816)	20513	0.10000	0.09691
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	13296	0.10000	0.09128
	20 Acenaphthylene	152	16.955	16.955	(0.903)	18914	0.10000	0.08252
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	12486	0.10000	0.09384
	22 Acenaphthene	153	17.361	17.361	(0.924)	12627	0.10000	0.08571
	23 Dibenzofuran	168	17.735	17.735	(0.944)	20434	0.10000	0.09154
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	10919	0.10000	0.08542
*	25 Fluorene-d10	176	18.781	18.781	(1.000)	472157	2.00000	
	26 Fluorene	166	18.883	18.883	(1.005)	14909	0.10000	0.09190
	30 Dibenzothiophene	184	21.794	21.794	(1.160)	17816	0.10000	0.08700
$	35 Phenanthrene-d10	188	22.102	22.102	(0.995)	18198	0.10000	0.1033
	36 Phenanthrene	178	22.190	22.190	(0.999)	20065	0.10000	0.1021
*	250 Anthracene-d10	188	22.223	22.223	(1.000)	325856	2.00000	
	37 Anthracene	178	22.289	22.289	(1.003)	16177	0.10000	0.08927
	42 Carbazole	167	23.564	23.565	(1.060)	9889	0.10000	0.06636
	43 1-Methylphenanthrene	192	24.015	24.015	(1.081)	9946	0.10000	0.08333
	44 Fluoranthene	202	25.994	25.994	(1.170)	15945	0.10000	0.09133
	46 Pyrene	202	26.841	26.841	(1.208)	15690	0.10000	0.08672
	51 Naphthobenzothiophene	234	29.384	29.384	(1.322)	13512	0.10000	0.07664
	55 Benzo(a)anthracene	228	29.964	29.964	(0.907)	9383	0.10000	0.06355
$	56 Chrysene-d12	240	30.087	30.087	(0.910)	9306	0.10000	0.07674
	57 Chrysene	228	30.166	30.166	(0.913)	13256	0.10000	0.08505
	62 Benzo(b)fluoranthene	252	32.385	32.386	(0.980)	8858	0.10000	0.06481(M)
	63 Benzo(k)fluoranthene	252	32.430	32.430	(0.981)	11468	0.10000	0.06864(M)
	293 Benzo(j)fluoranthene	252	32.498	32.498	(0.983)	14236	0.10000	0.08967(M)
	246 Total Benzofluoranthenes	252	32.498	32.497	(0.983)	32397	0.30000	0.2137(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.050	33.050	(1.000)	333740	2.00000	
64 Benzo(e)pyrene	252	33.106	33.106	(1.002)	12512	0.10000	0.08802
66 Benzo(a)pyrene	252	33.207	33.208	(1.005)	9145	0.10000	0.06343
$ 67 Perylene-d12	264	33.388	33.388	(1.010)	8370	0.10000	0.06613
68 Perylene	252	33.433	33.433	(1.012)	11834	0.10000	0.08717(M)
69 Indeno(1,2,3-cd)pyrene	276	35.415	35.415	(1.072)	9073	0.10000	0.06210
70 Dibenzo(a,h)anthracene	278	35.404	35.404	(1.071)	6753	0.10000	0.05372
74 Benzo(g,h,i)perylene	276	36.293	36.293	(1.098)	10019	0.10000	0.07835

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043009.D
Lab Smp Id: SJD0305-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	472157	12.30
250 Anthracene-d10	381033	190517	762066	325856	-14.48
251 Benzo(e)pyrene-d1	370998	185499	741996	333740	-10.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043009.D

Lab ID: SJD0305-CAL1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 13:32

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

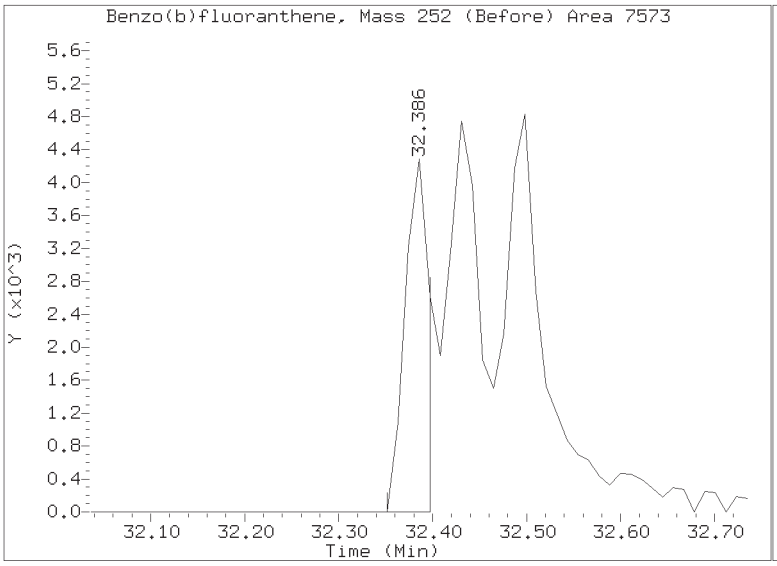
RRT check based on Ccal File: NT1421043009.D

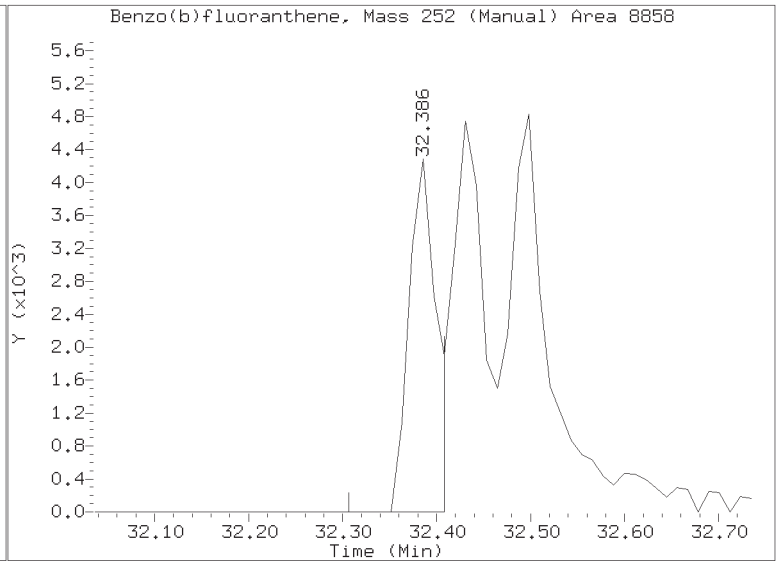
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

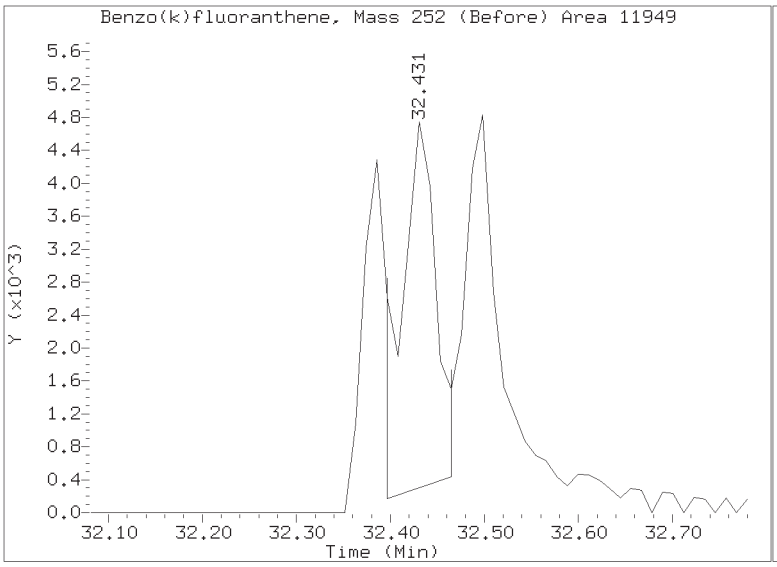
* Only compounds listed in the work order have been verified by the analyst *

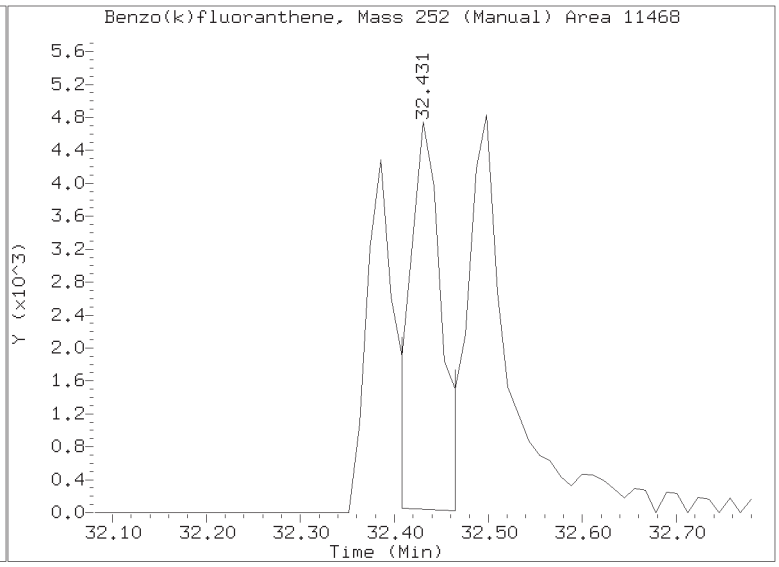
Quant Ion Manual Peak Adjustment Report

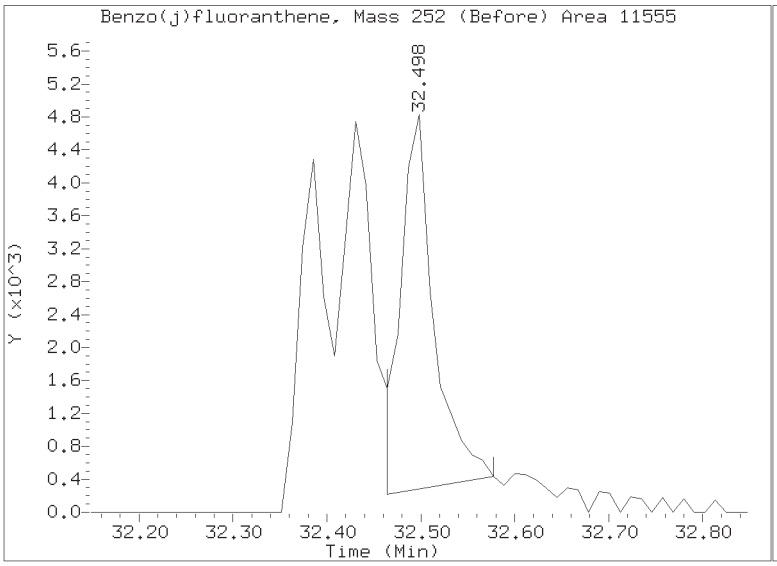
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043009.D
Injection Date: 30-APR-2021 13:32
Lab ID:SJD0305-CAL1 Client ID:
Report Date: 05/01/2021 09:18

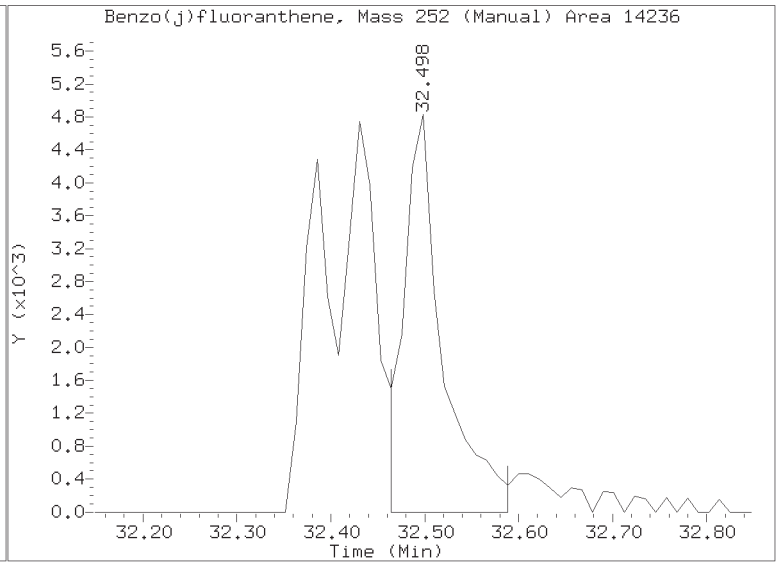












Quant Ion Manual Peak Adjustment Report

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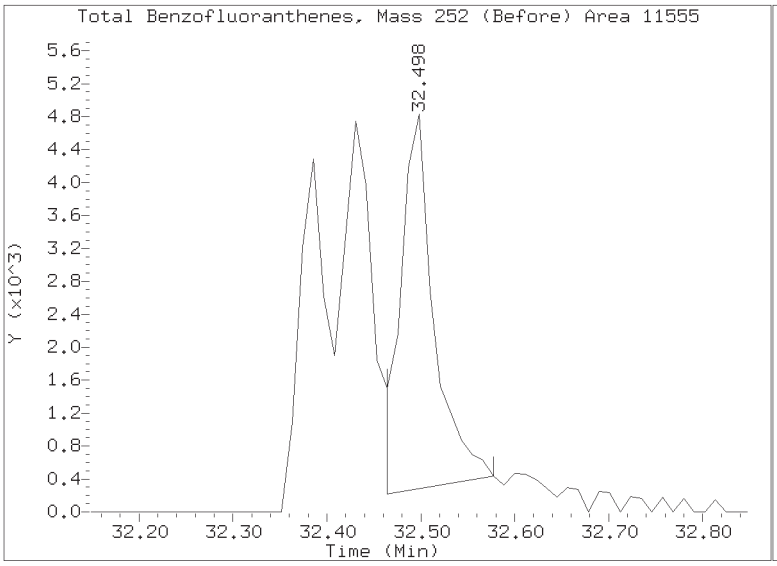
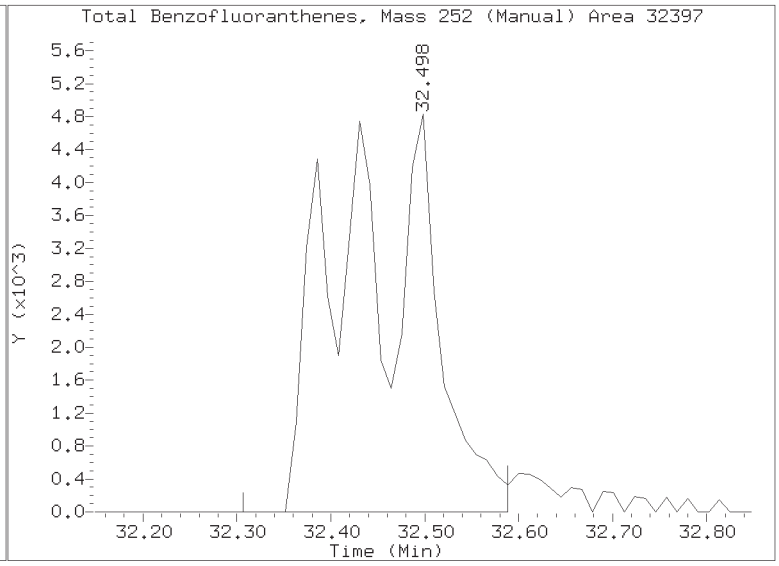
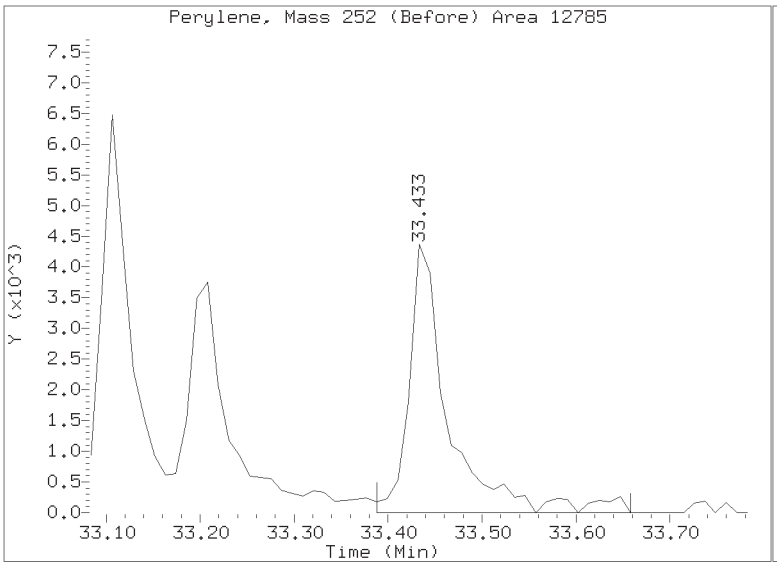
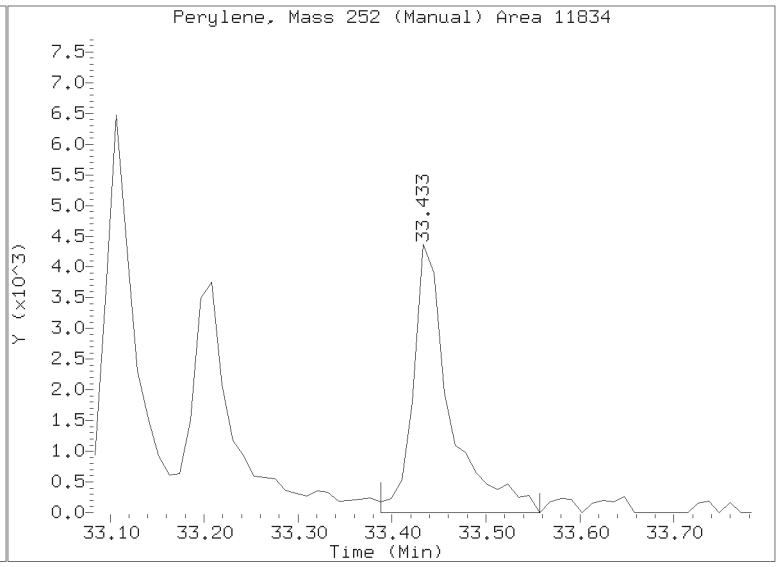
Injection Date: 30-APR-2021 13:32
Lab ID:SJD0305-CAL1 Client ID:
Report Date: 05/01/2021 09:18









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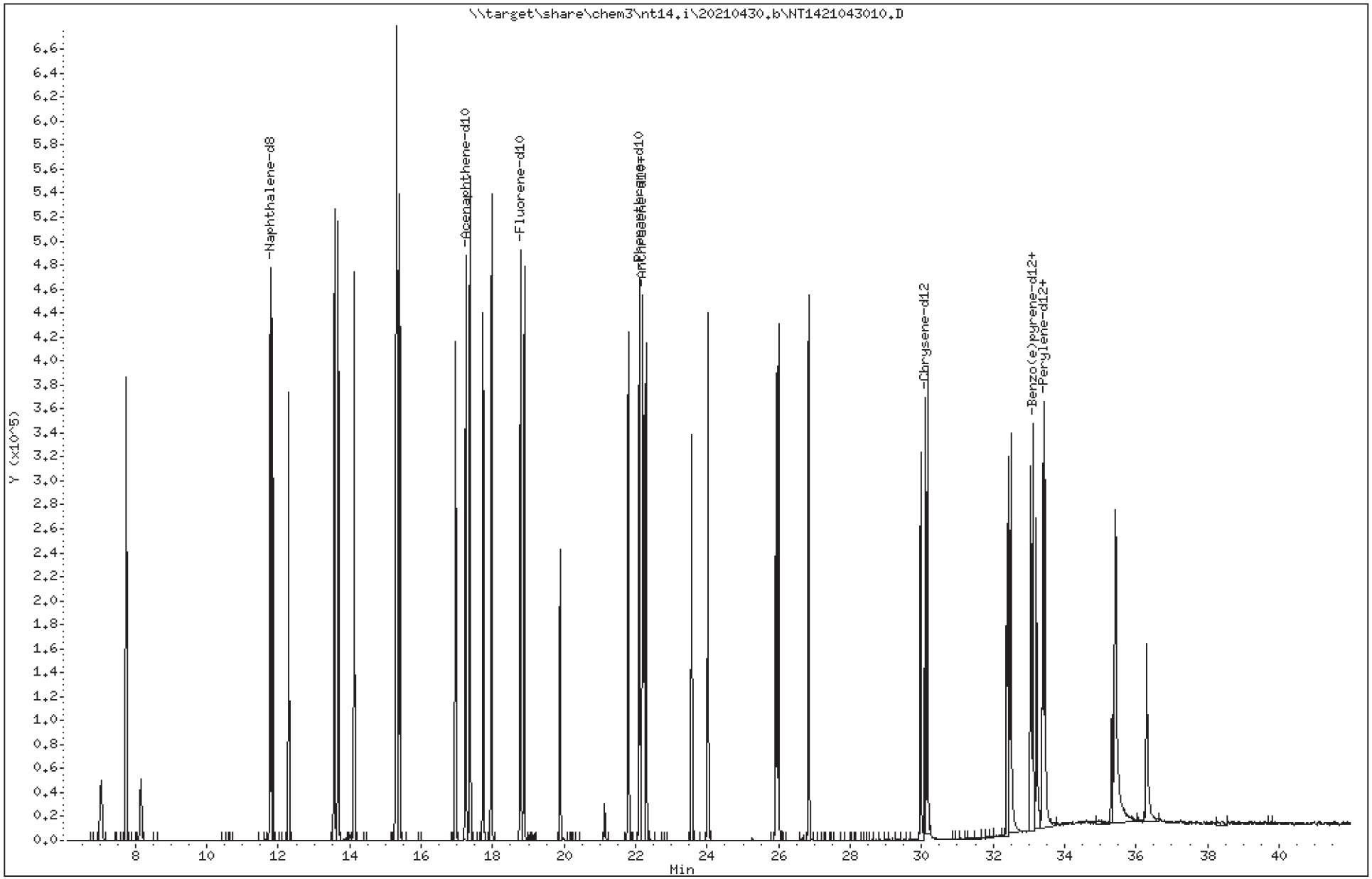
Date : 30-APR-2021 14:41
Client ID:
Sample Info: SJD0305-SCV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

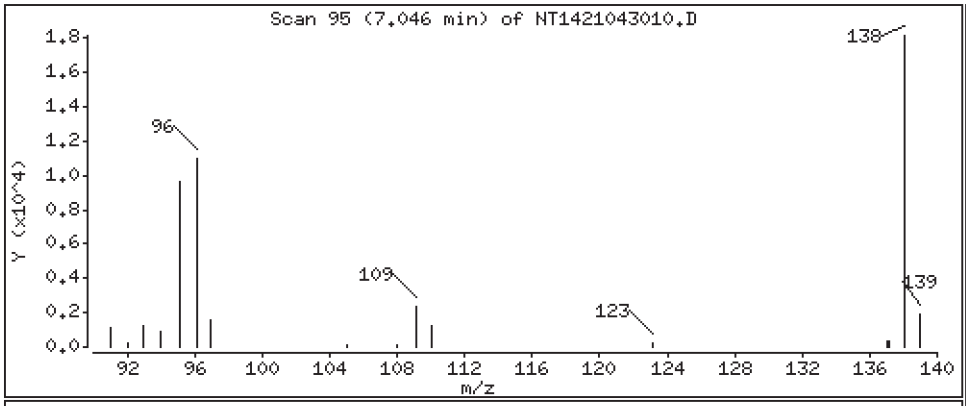
Operator: VTS

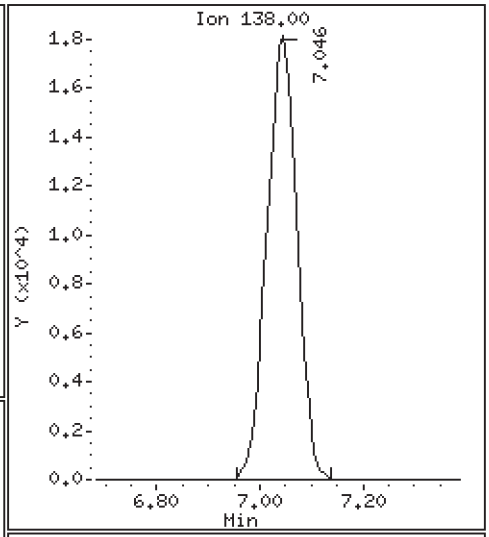
Column phase: Rxi-17Sil MS

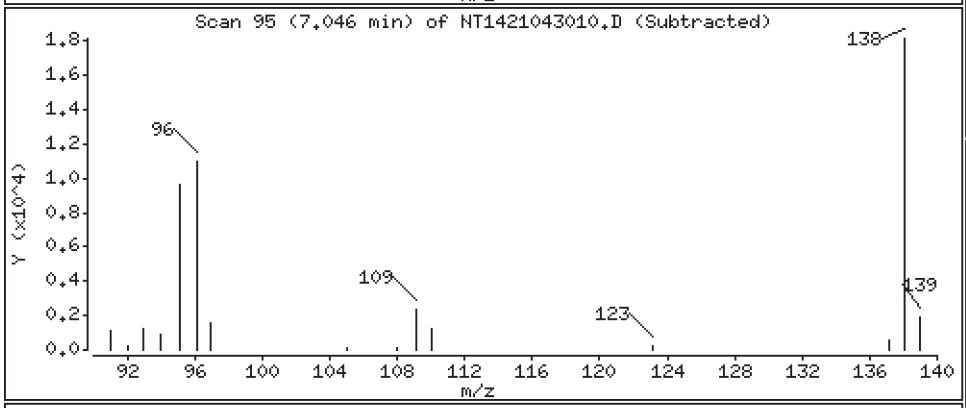
Column diameter: 0.25

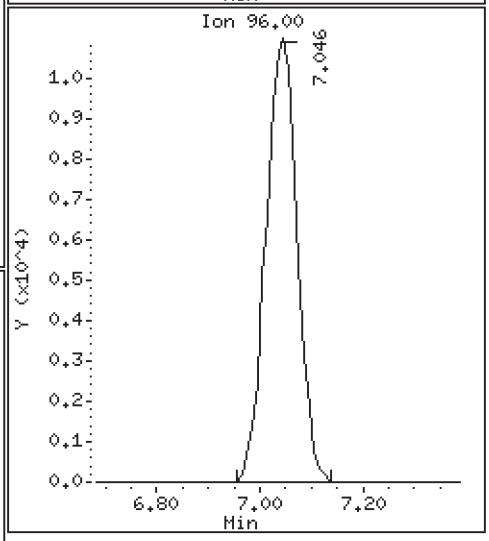
1 trans-Decalin

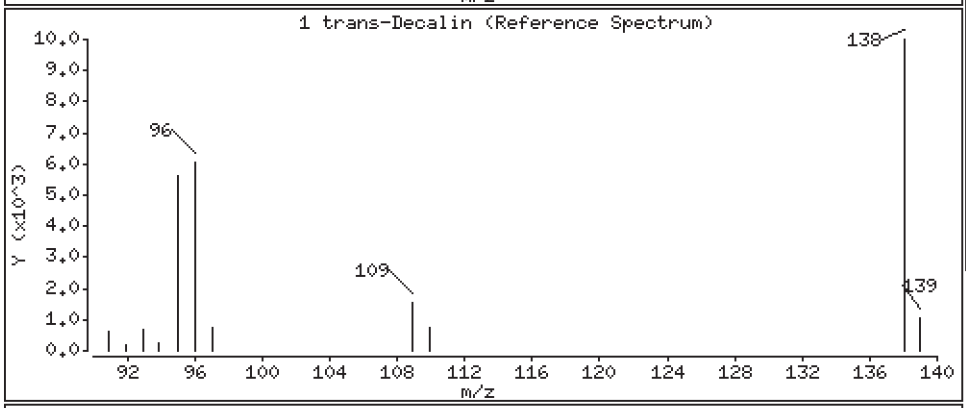
Concentration: 2.843 ug/mL

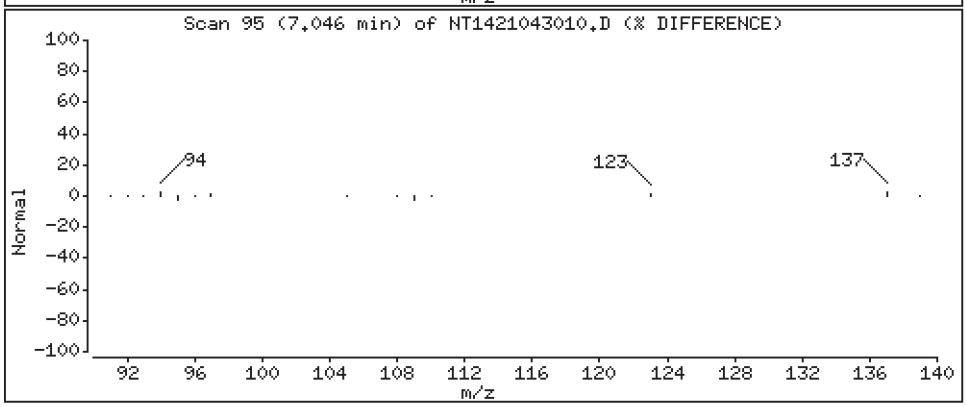












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

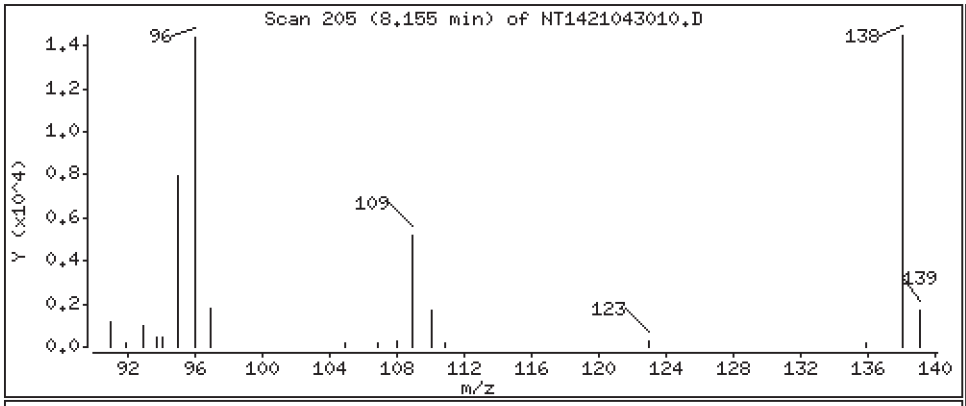
Operator: VTS

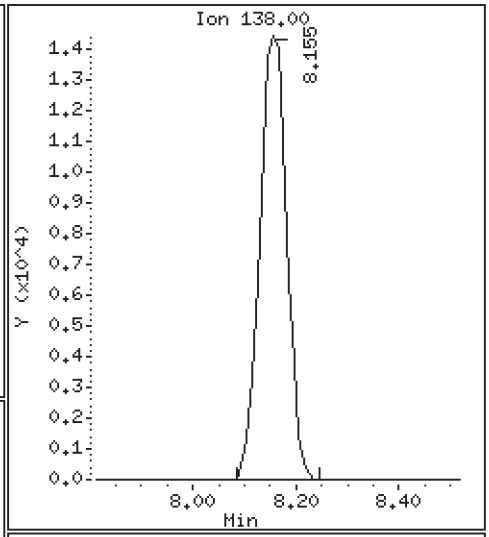
Column phase: Rxi-17Sil MS

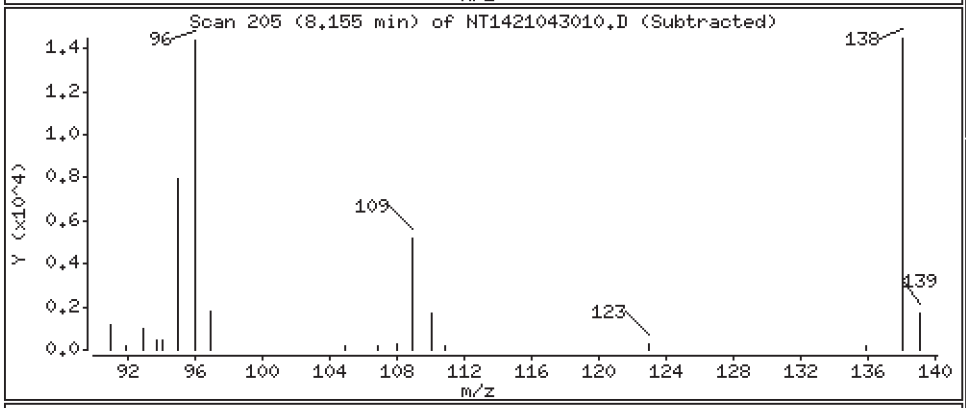
Column diameter: 0.25

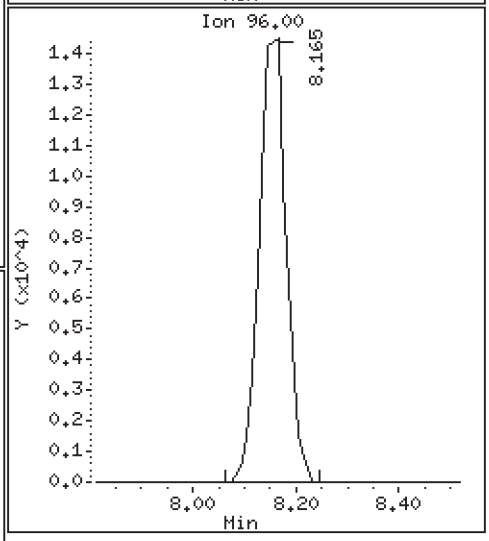
2 cis-Decalin

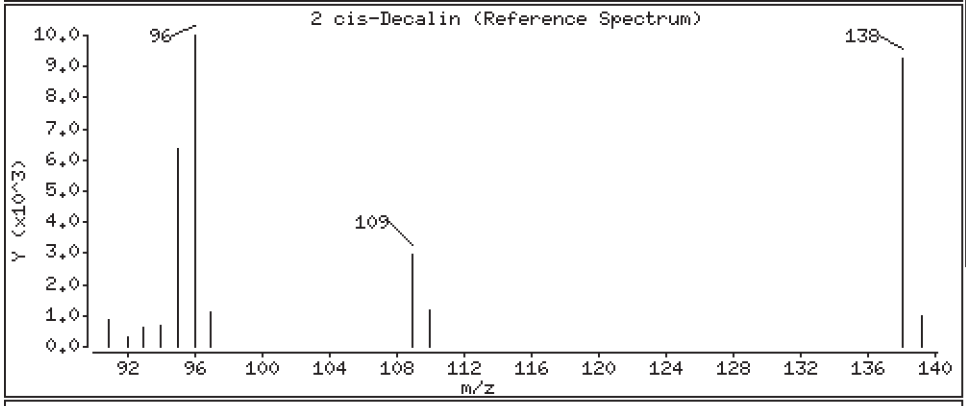
Concentration: 2.910 ug/mL

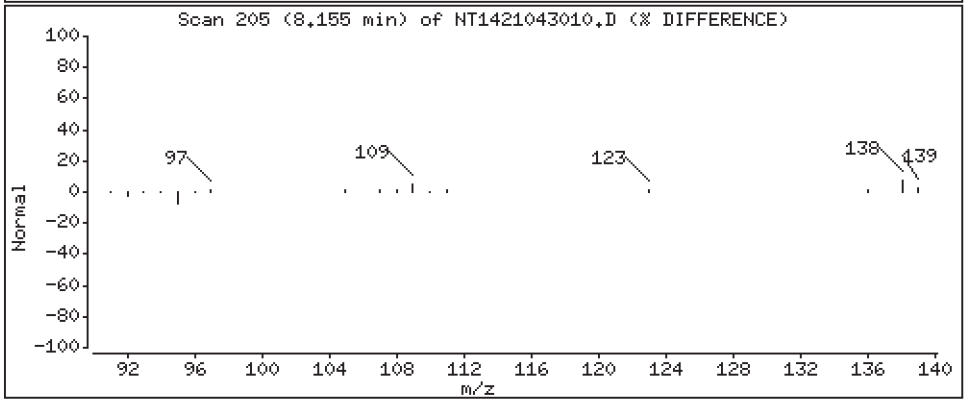












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

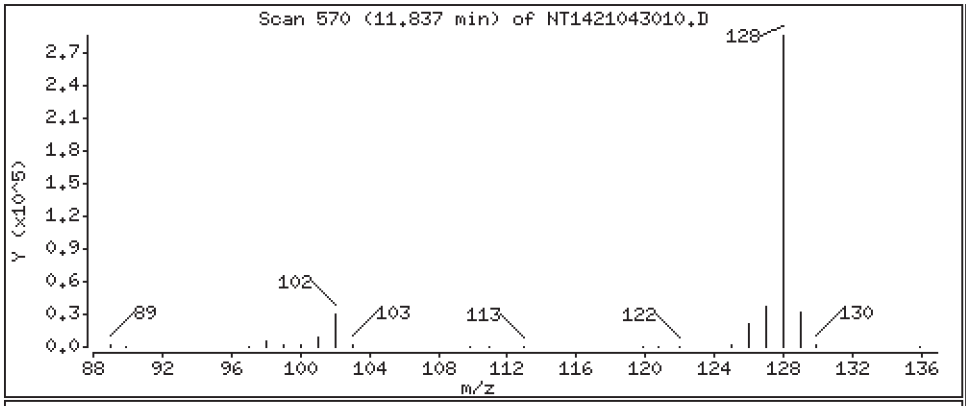
Operator: VTS

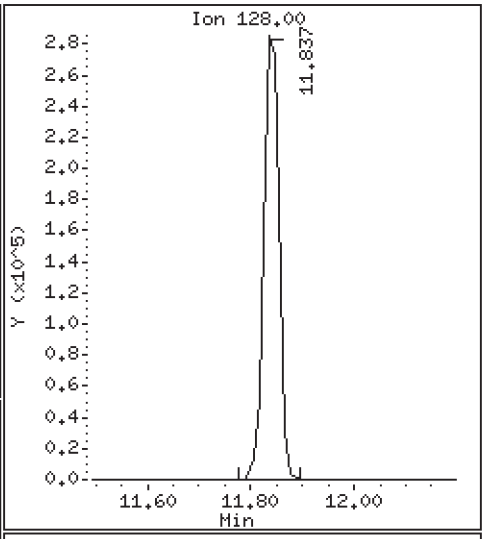
Column phase: Rxi-17Sil MS

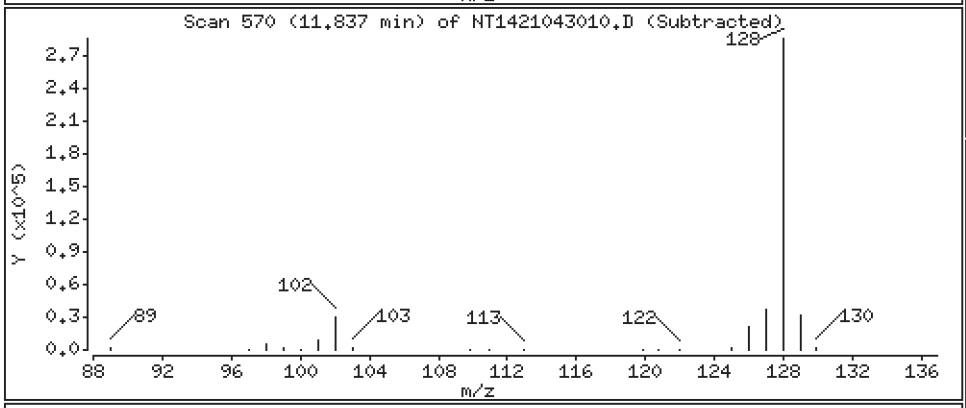
Column diameter: 0.25

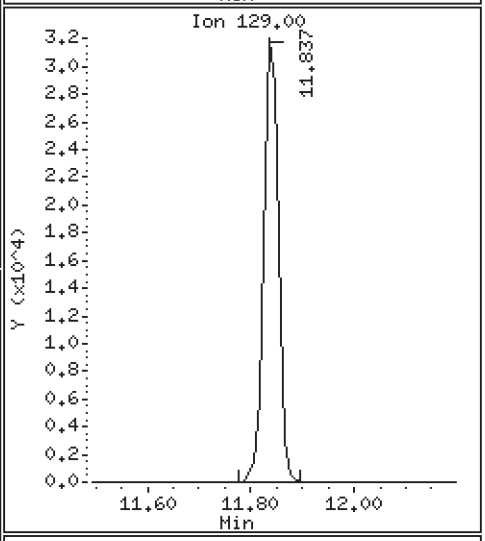
7 Naphthalene

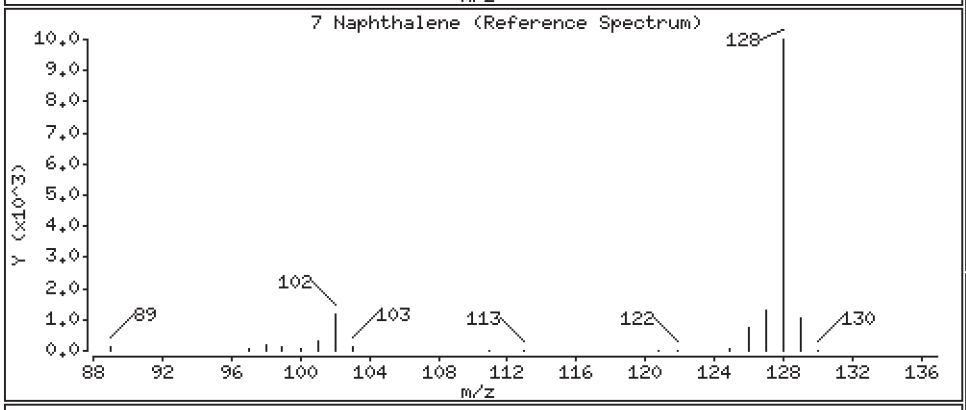
Concentration: 2.783 ug/mL

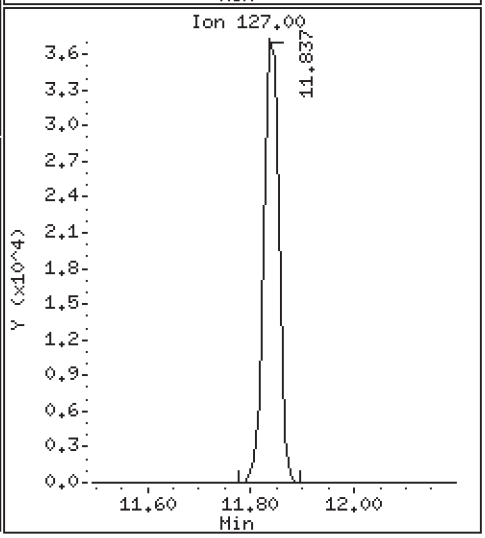


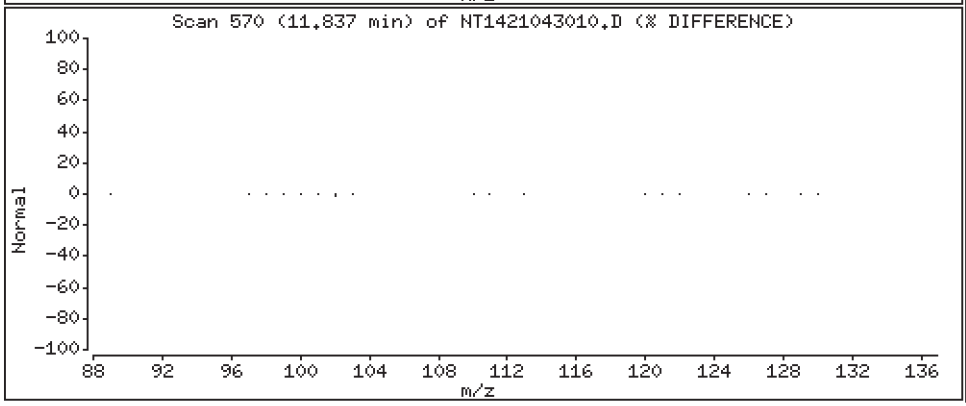












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

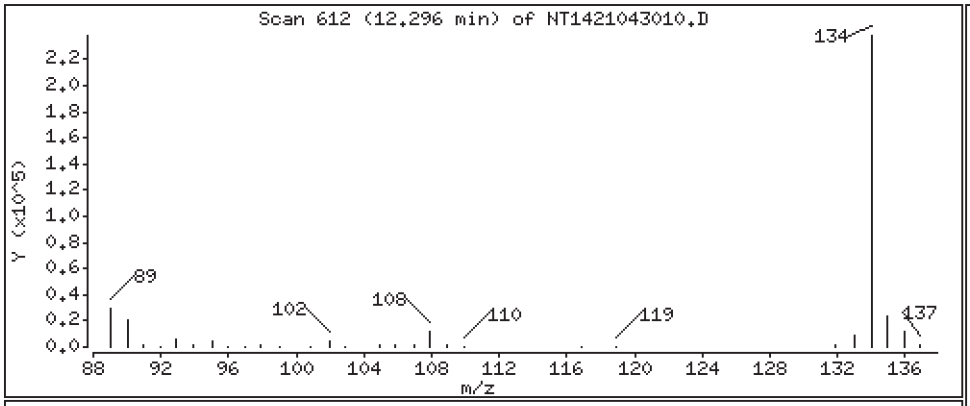
Operator: VTS

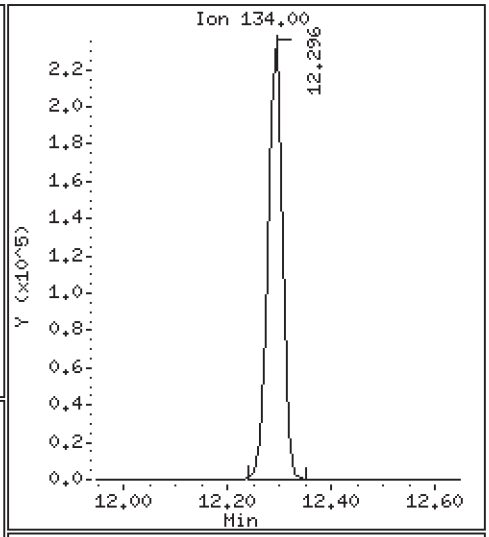
Column phase: Rxi-17Sil MS

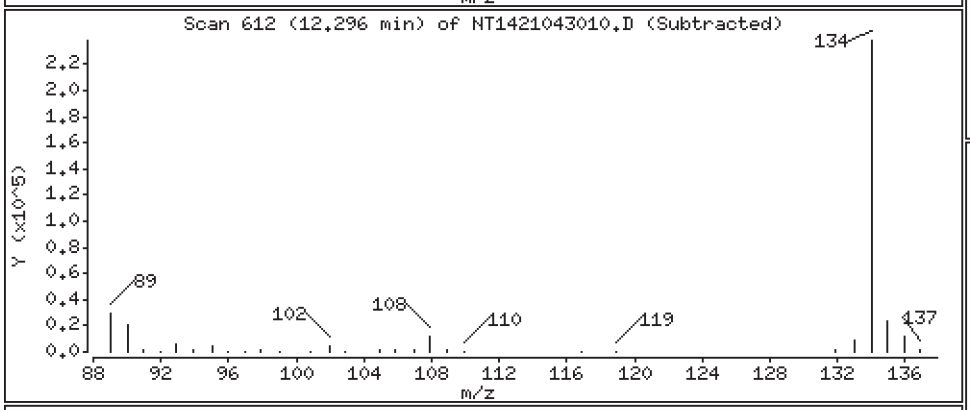
Column diameter: 0.25

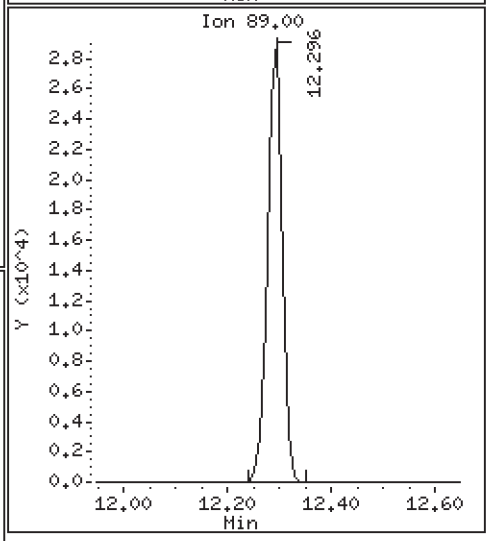
12 Benzo(b)thiophene

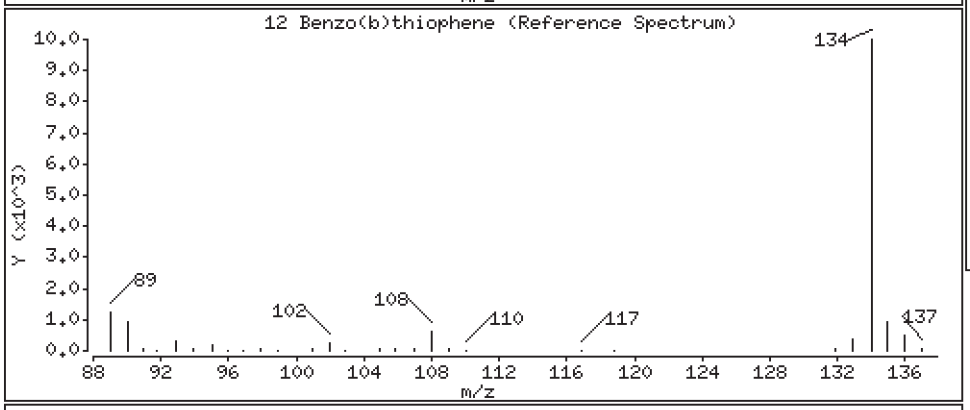
Concentration: 2.787 ug/mL

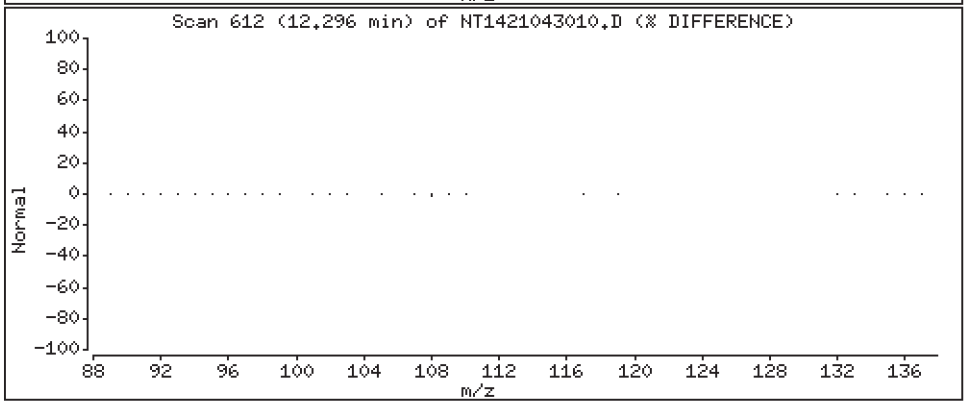












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

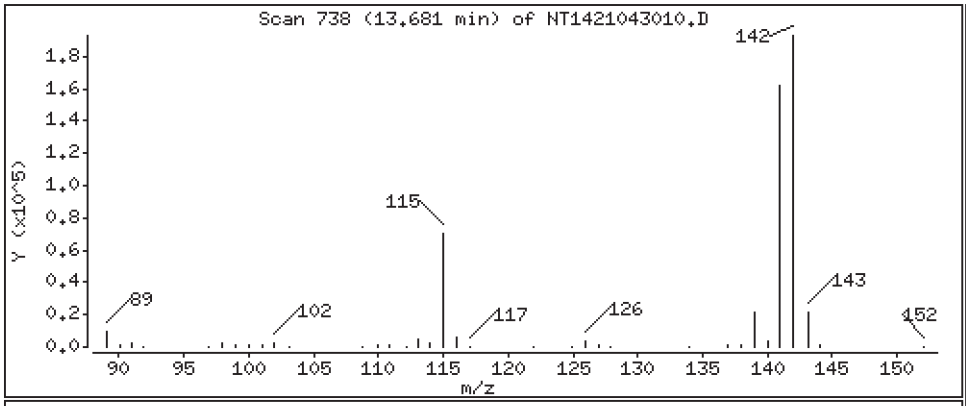
Operator: VTS

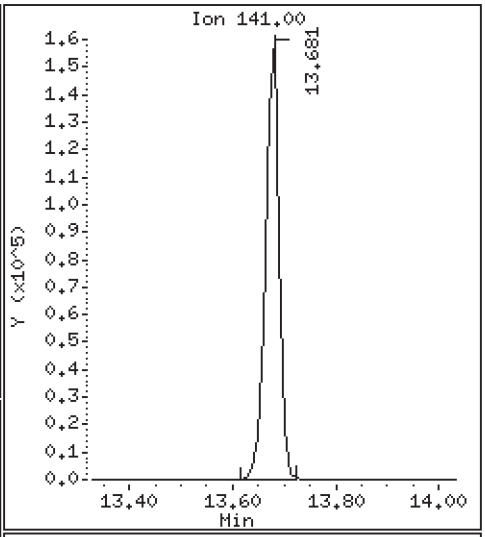
Column phase: Rxi-17Sil MS

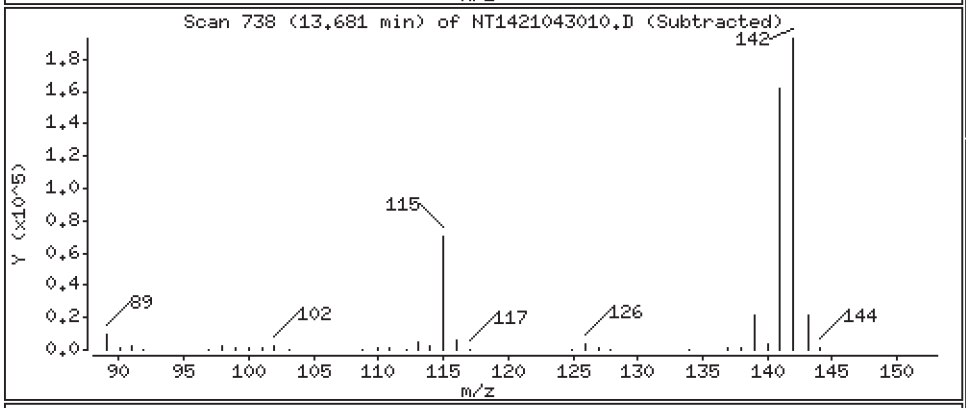
Column diameter: 0.25

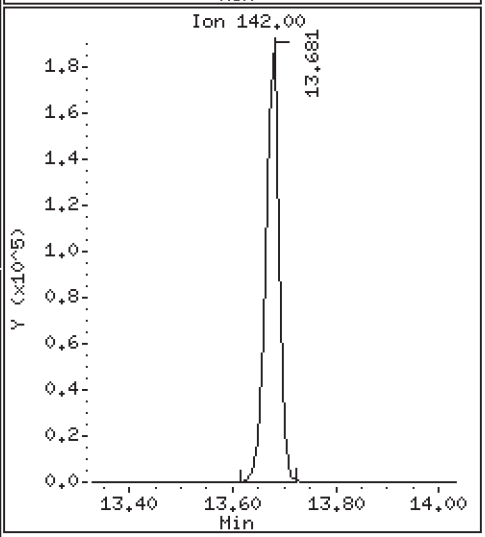
16 2-Methylnaphthalene

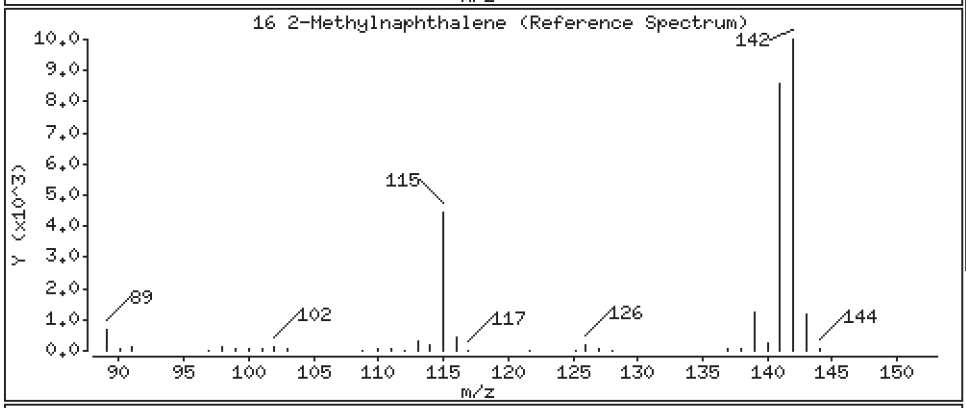
Concentration: 2.845 ug/mL

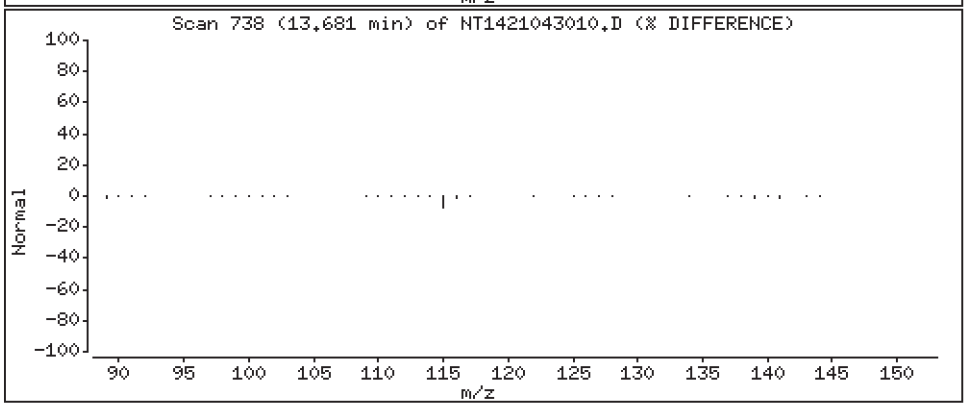












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

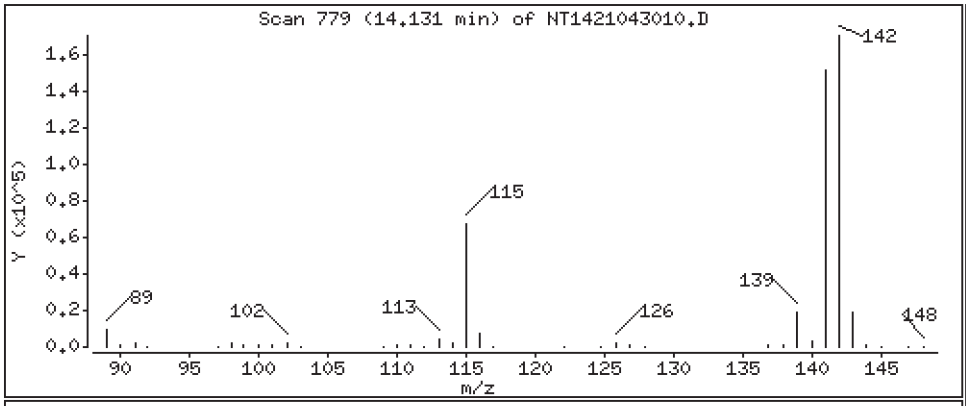
Operator: VTS

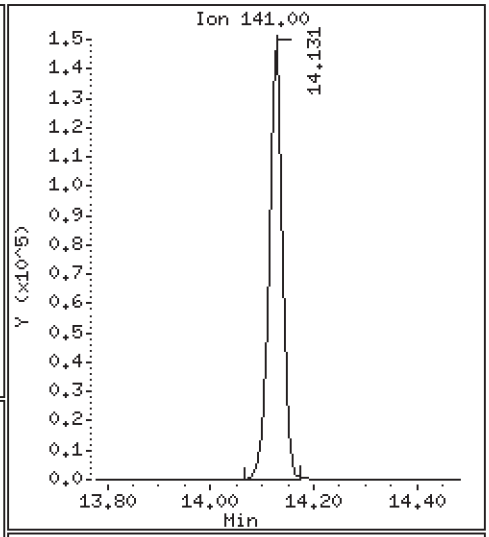
Column phase: Rxi-17Sil MS

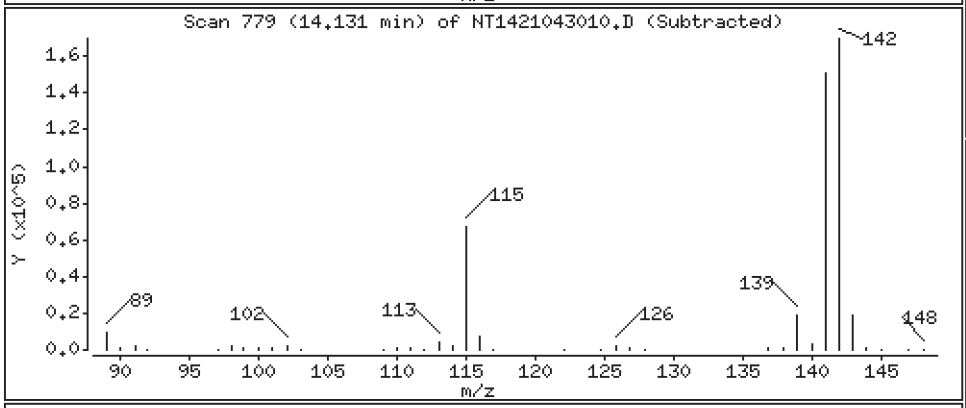
Column diameter: 0.25

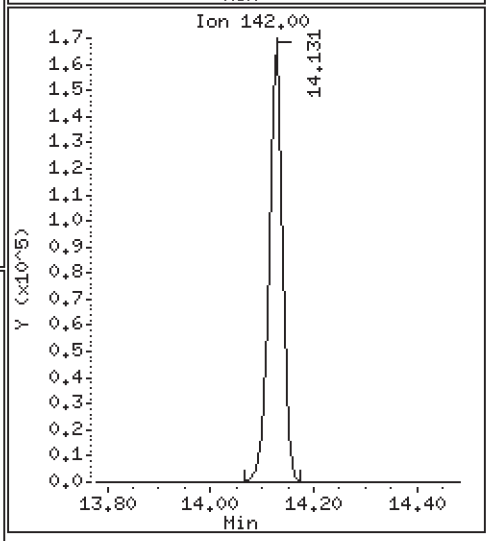
17 1-methylnaphthalene

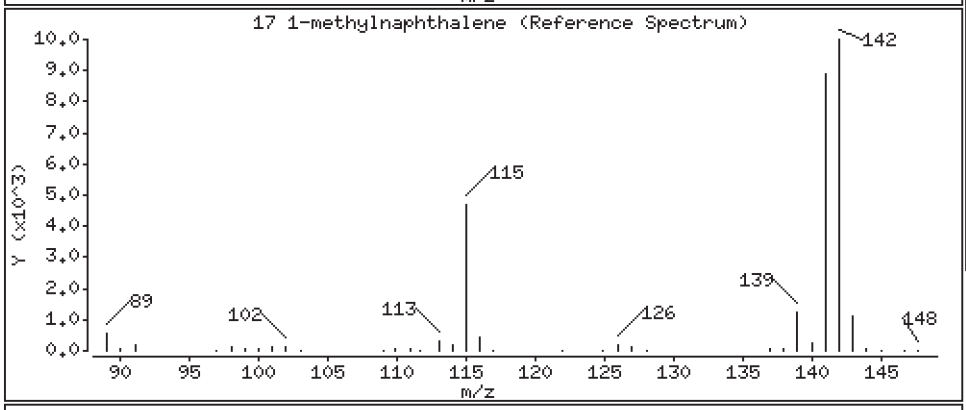
Concentration: 2.821 ug/mL

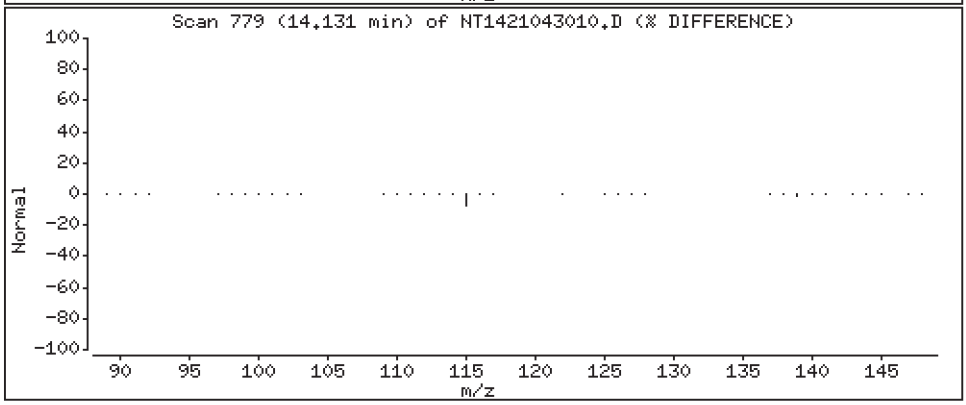












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

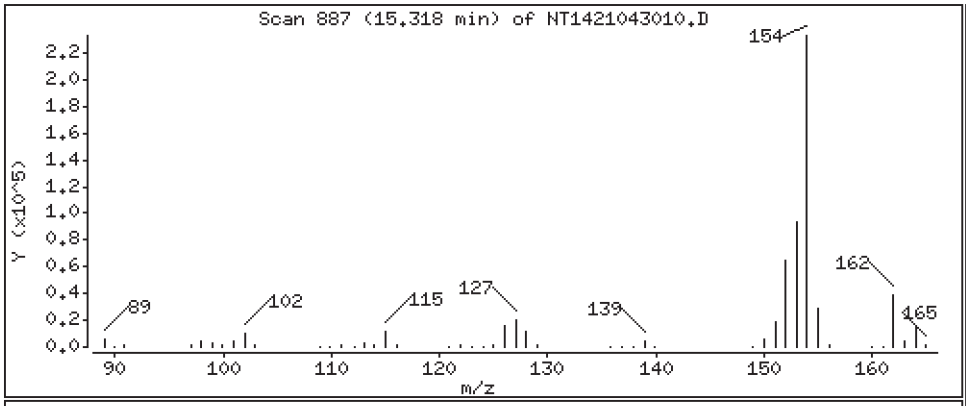
Operator: VTS

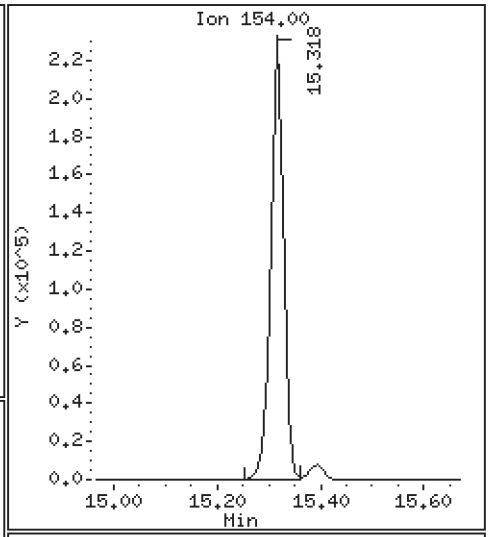
Column phase: Rxi-17Sil MS

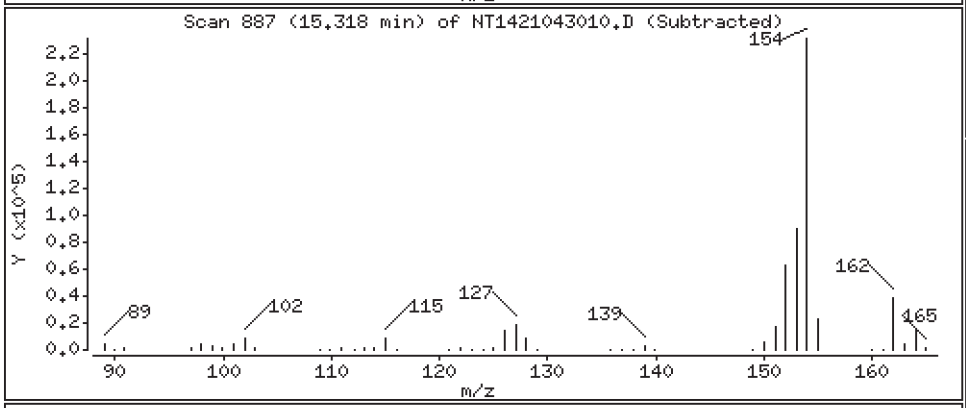
Column diameter: 0.25

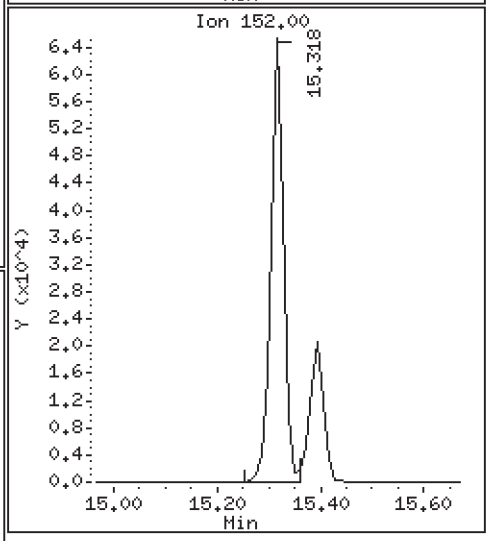
18 Biphenyl

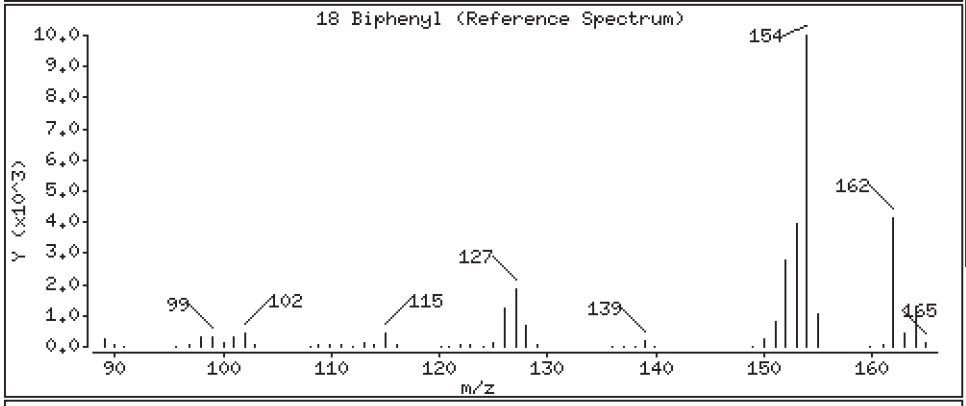
Concentration: 2.765 ug/mL

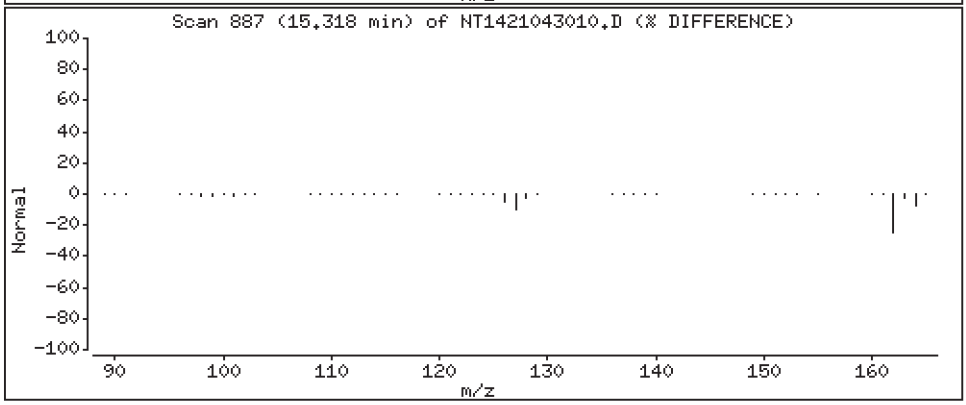












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

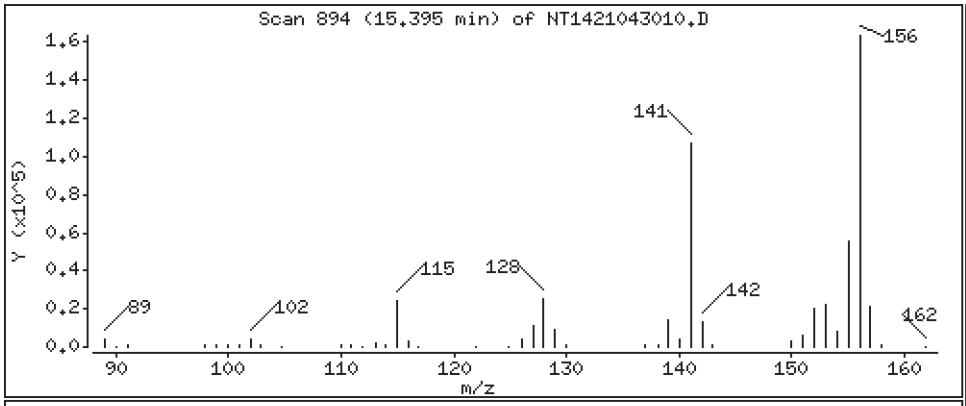
Operator: VTS

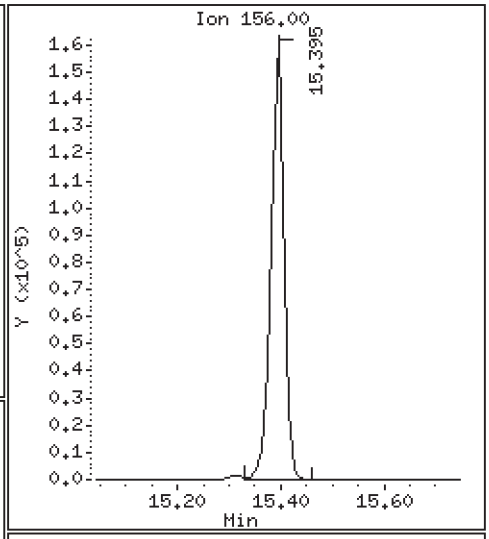
Column phase: Rxi-17Sil MS

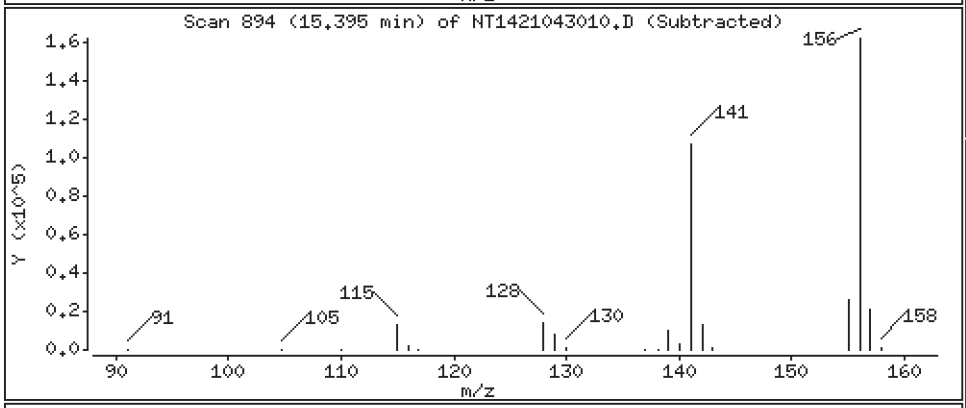
Column diameter: 0.25

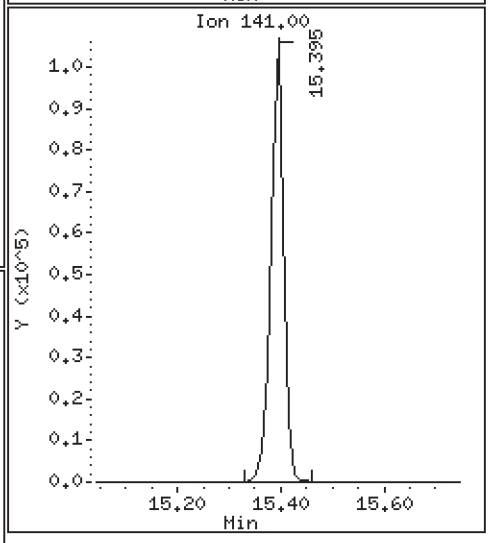
19 2,6-Dimethylnaphthalene

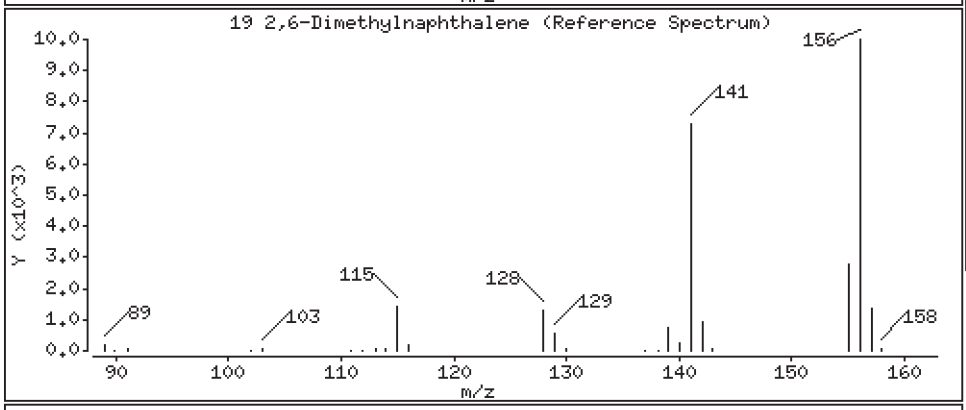
Concentration: 2.822 ug/mL

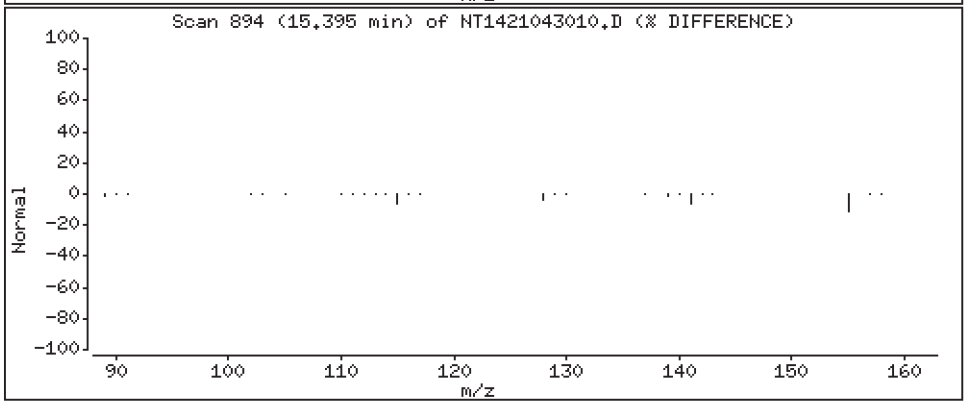












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

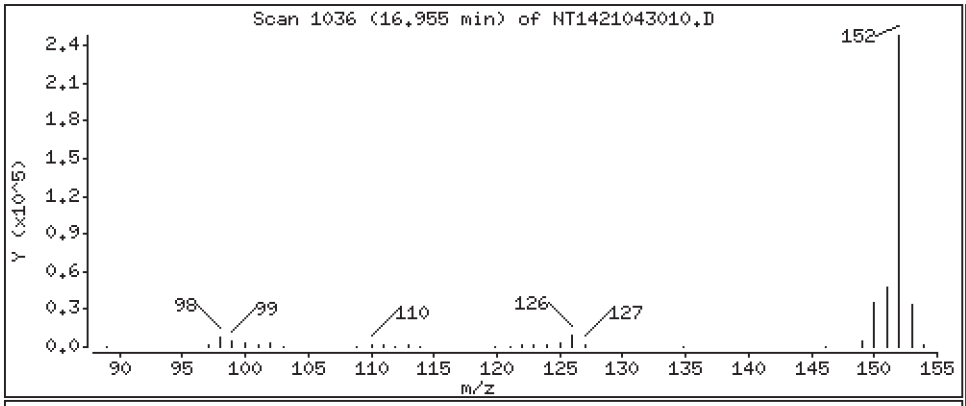
Operator: VTS

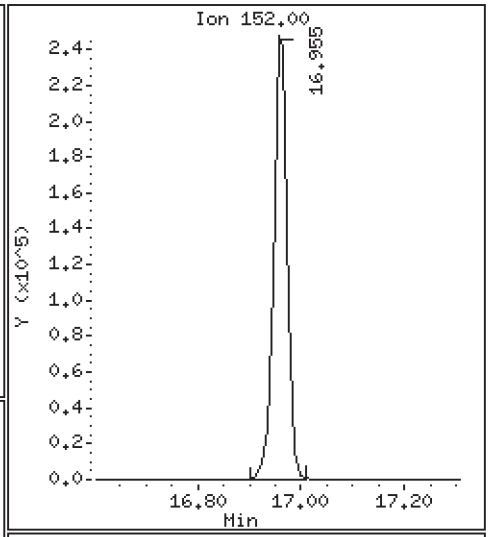
Column phase: Rxi-17Sil MS

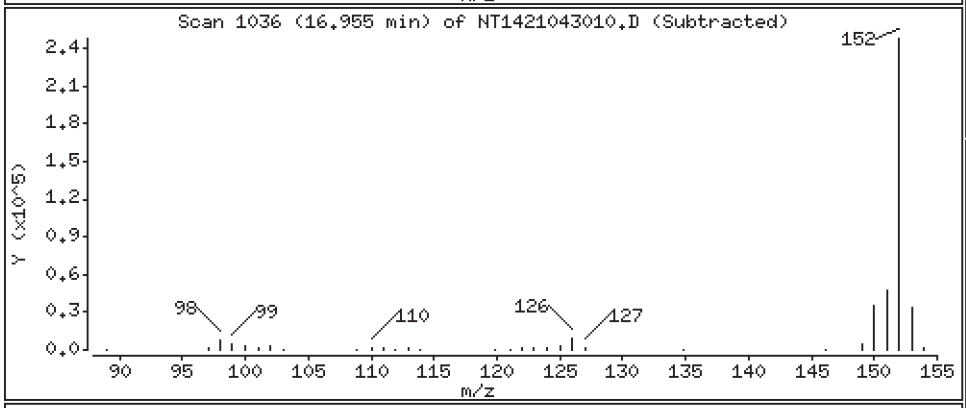
Column diameter: 0.25

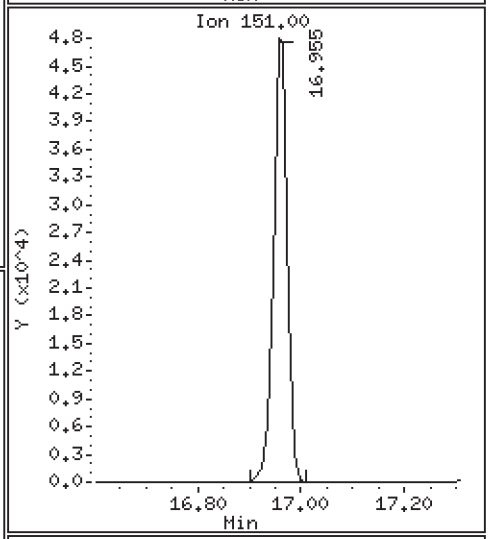
20 Acenaphthylene

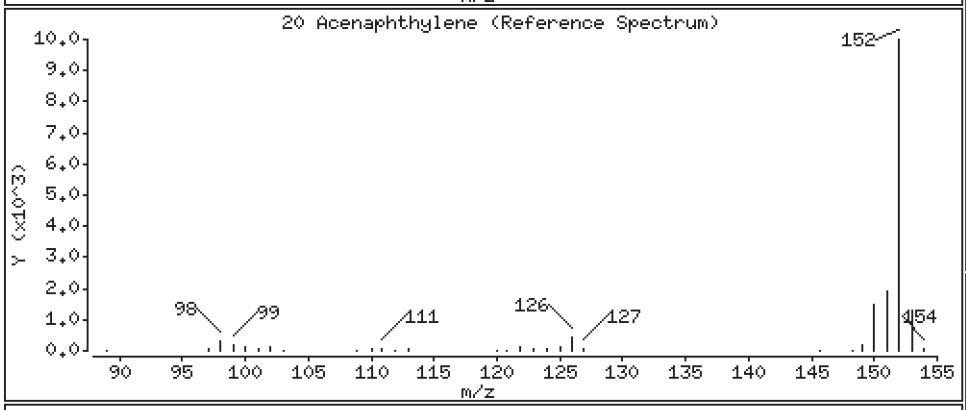
Concentration: 2.889 ug/mL

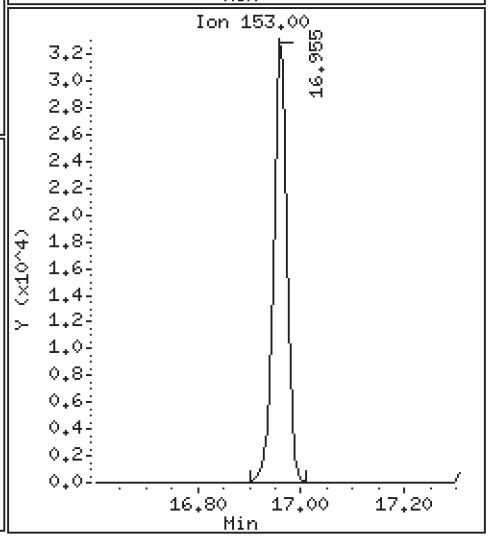


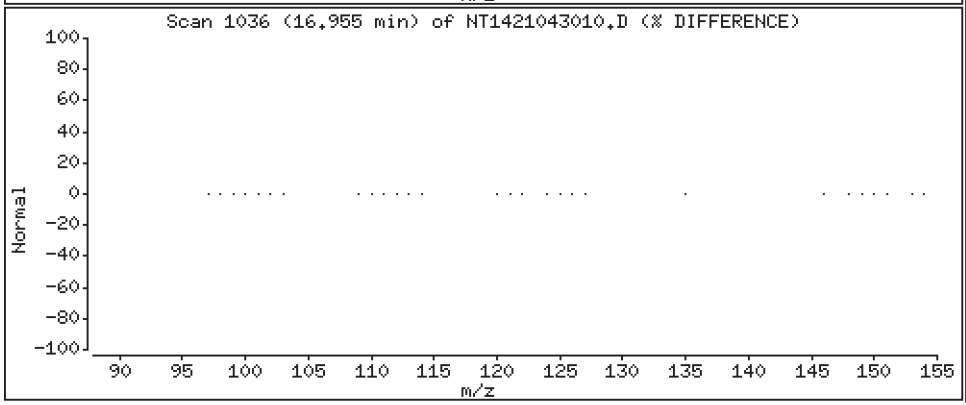












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

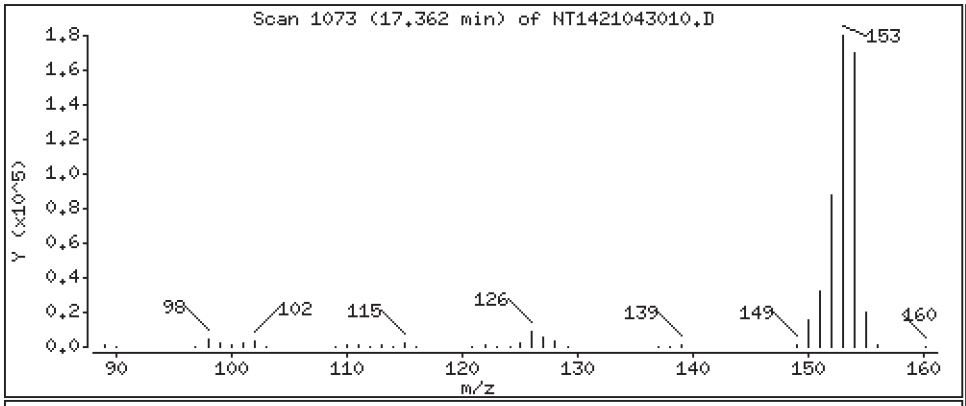
Operator: VTS

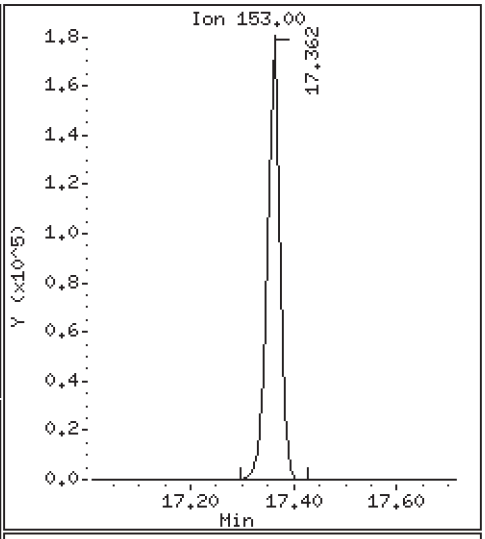
Column phase: Rxi-17Sil MS

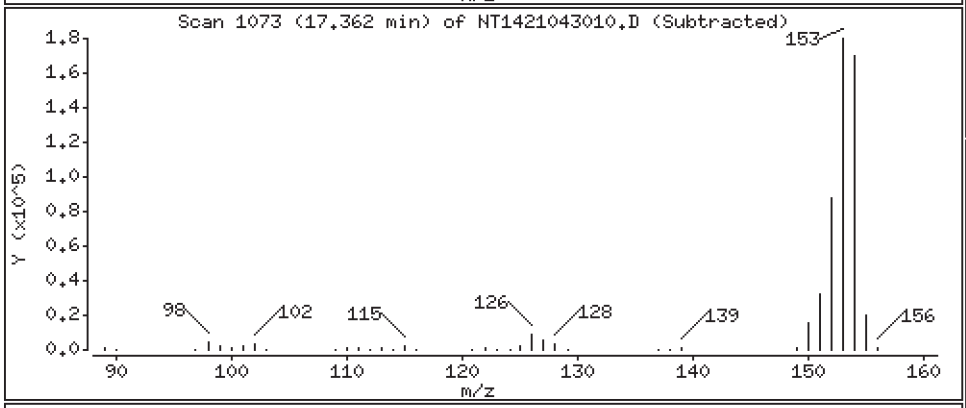
Column diameter: 0.25

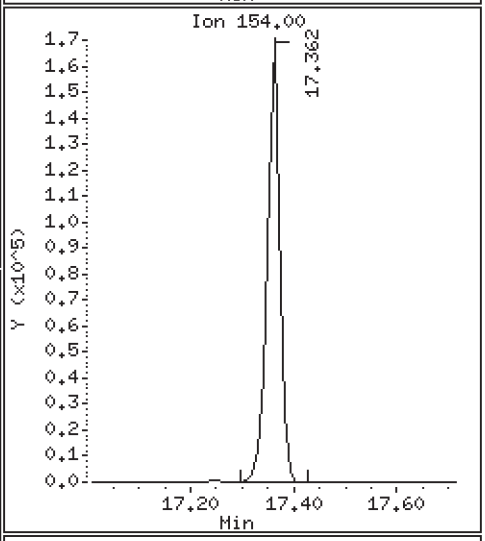
22 Acenaphthene

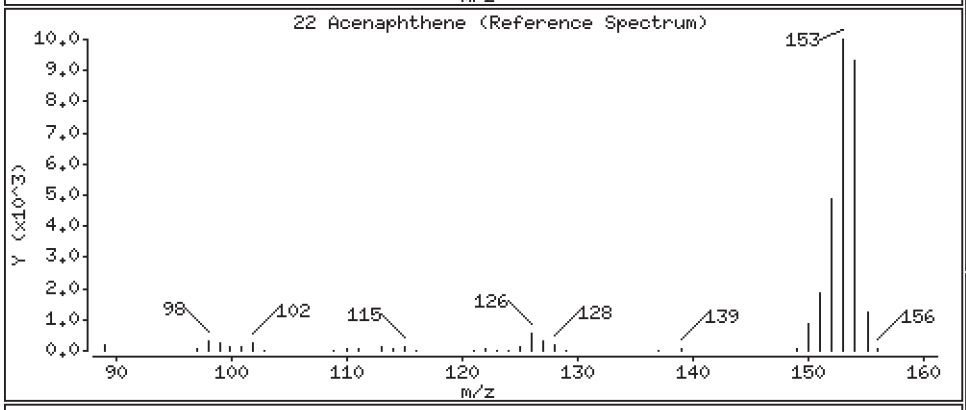
Concentration: 3.010 ug/mL

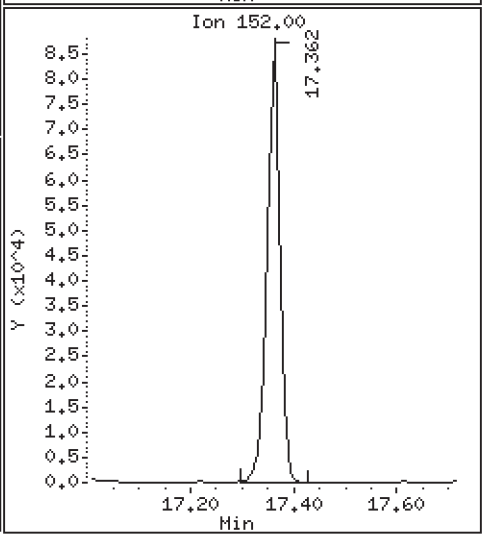


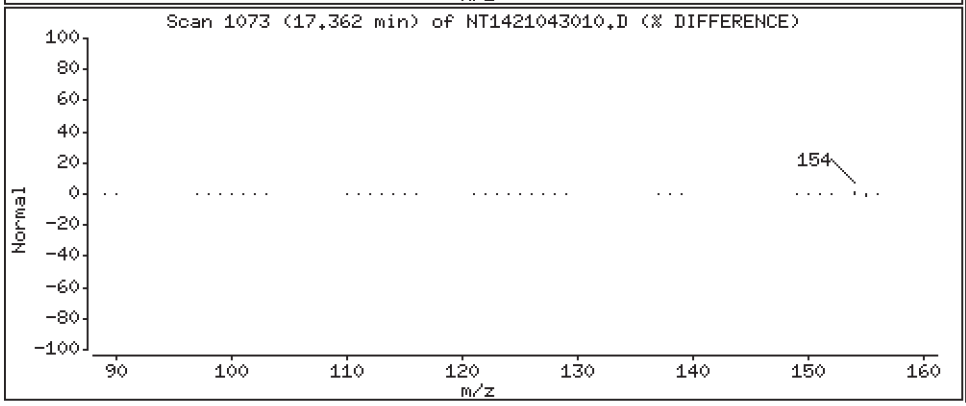












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

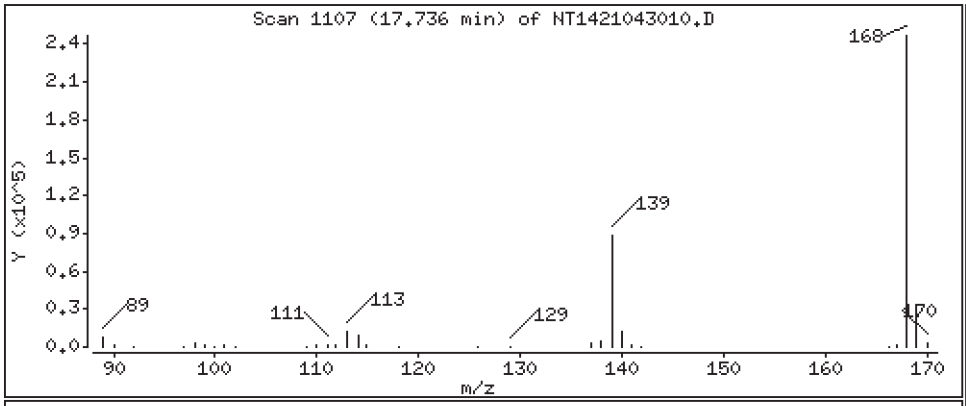
Operator: VTS

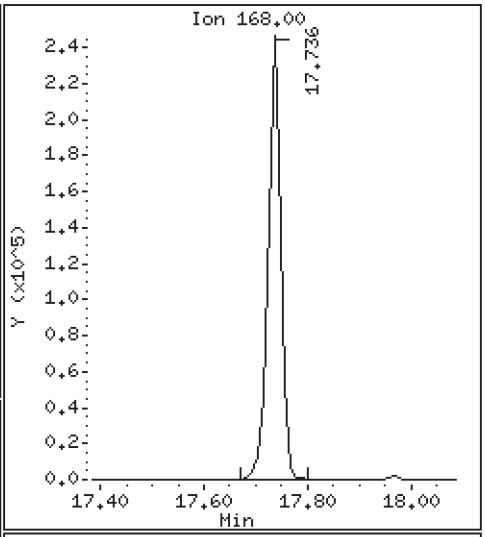
Column phase: Rxi-17Sil MS

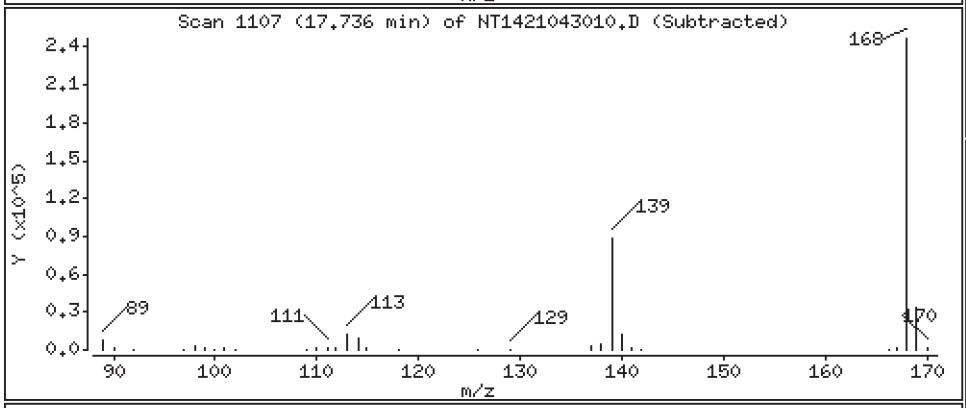
Column diameter: 0.25

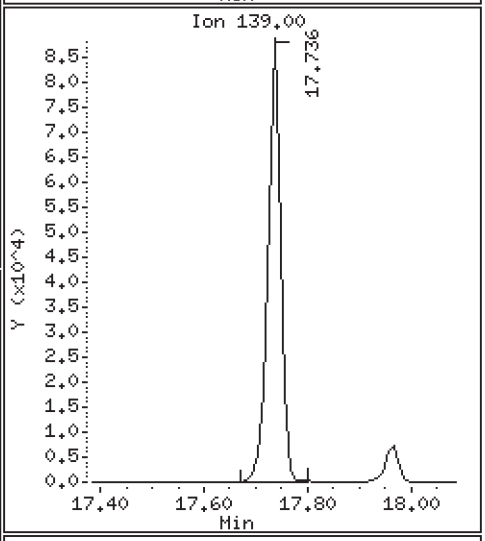
23 Dibenzofuran

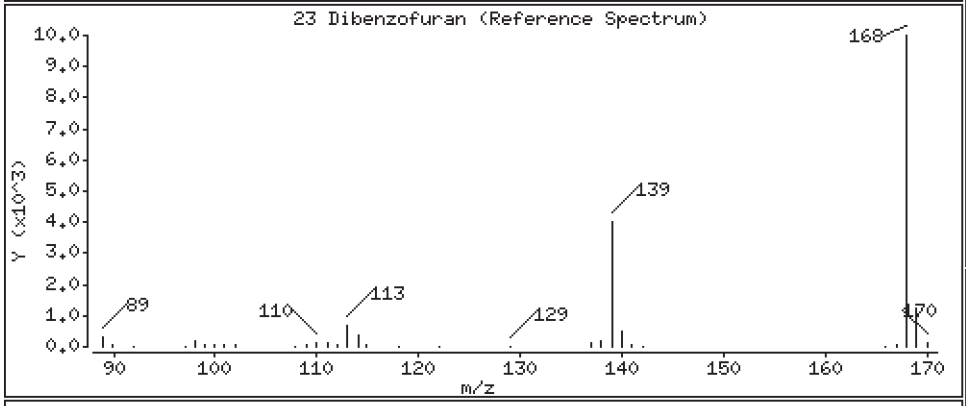
Concentration: 2.768 ug/mL

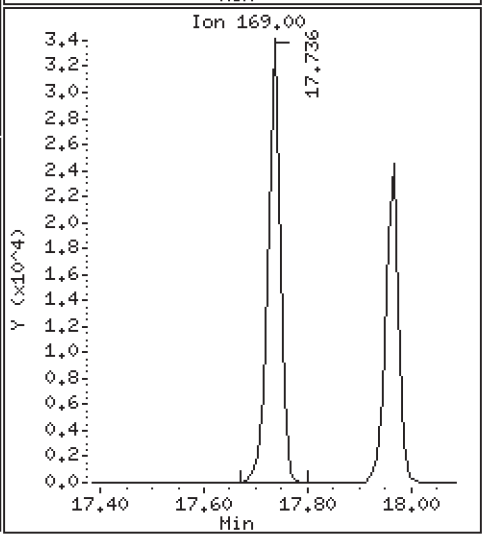


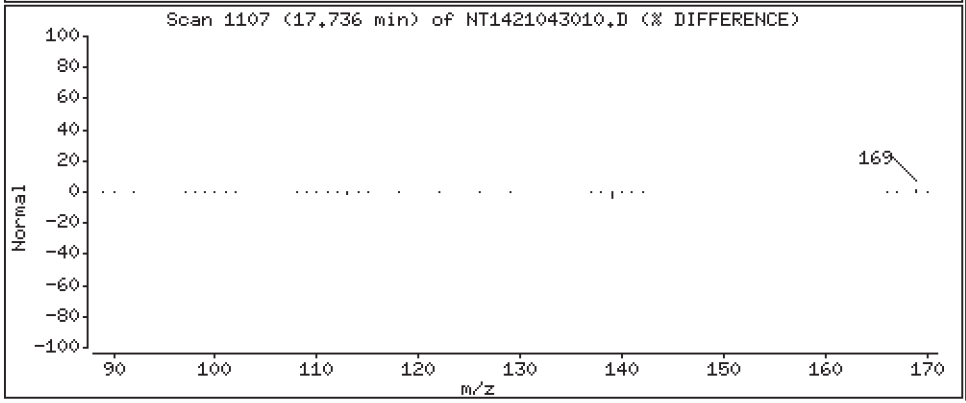












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

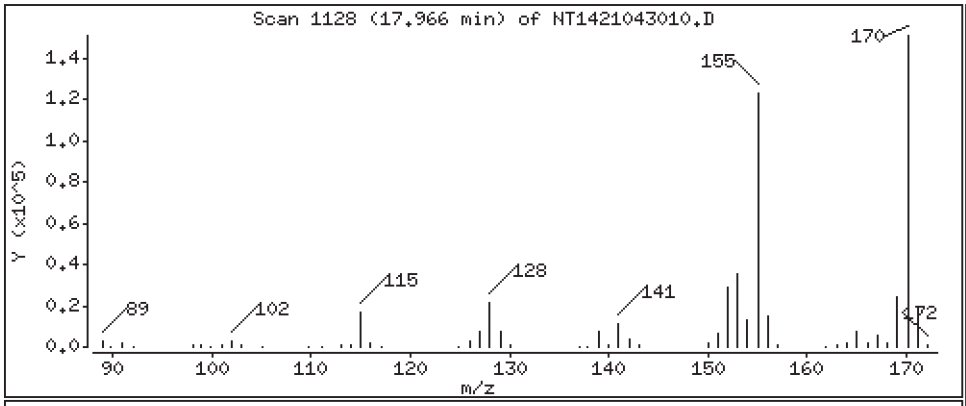
Operator: VTS

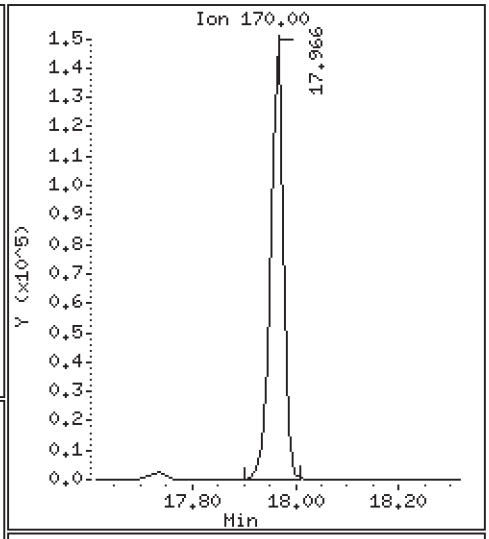
Column phase: Rxi-17Sil MS

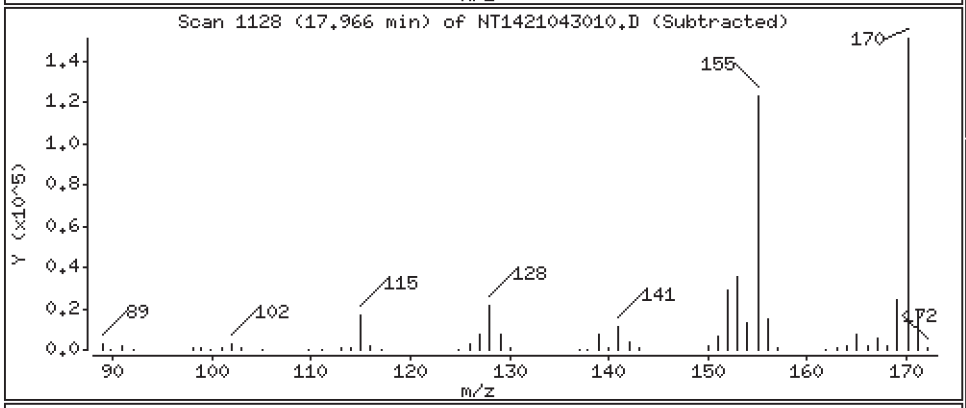
Column diameter: 0.25

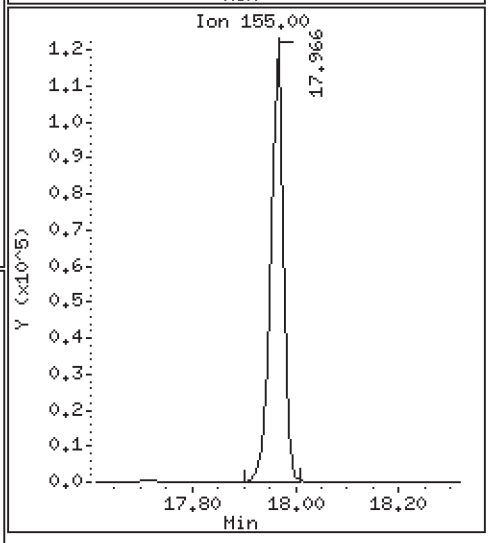
24 1,6,7-Trimethylnaphthalene

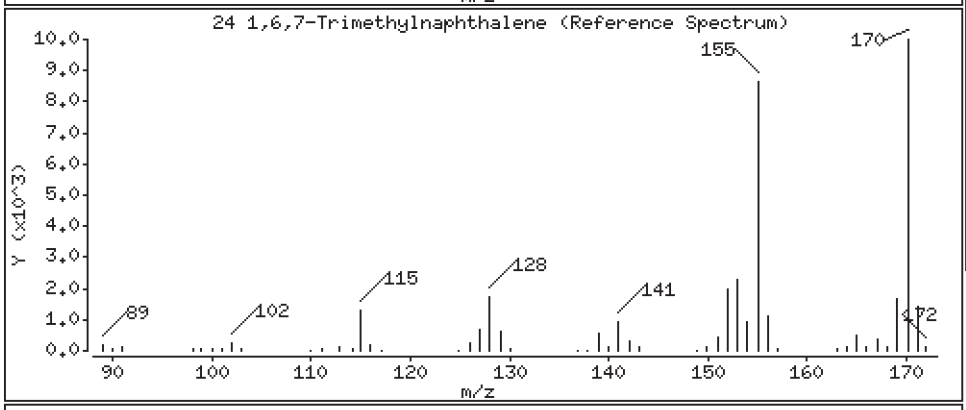
Concentration: 2.923 ug/mL

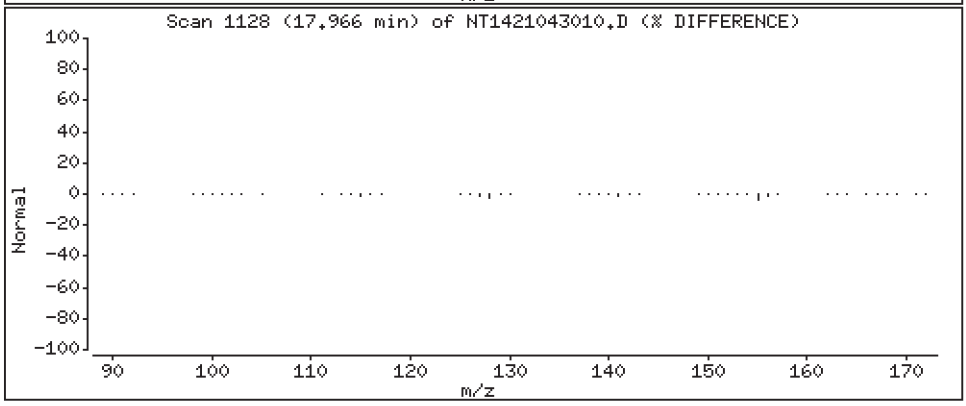












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

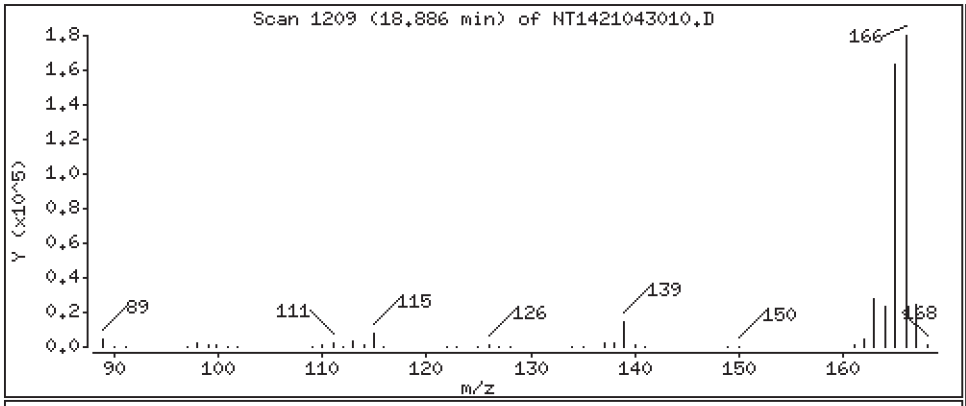
Operator: VTS

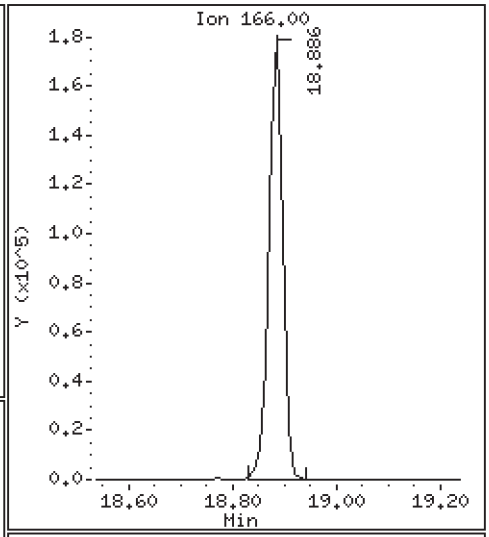
Column phase: Rxi-17Sil MS

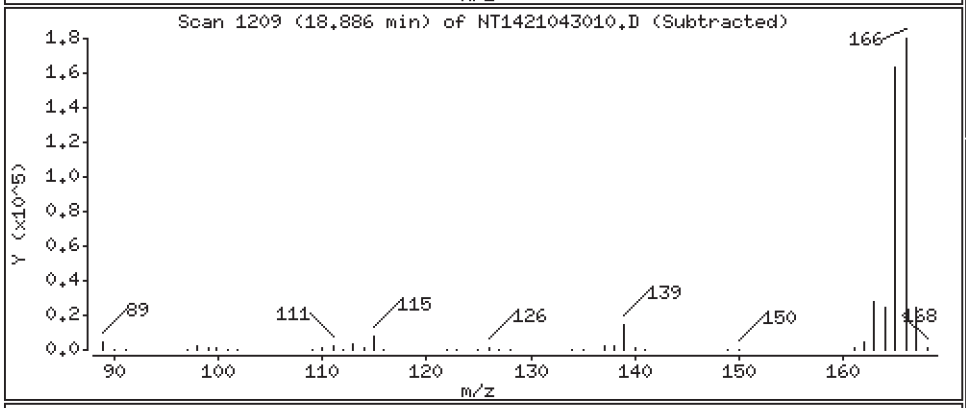
Column diameter: 0.25

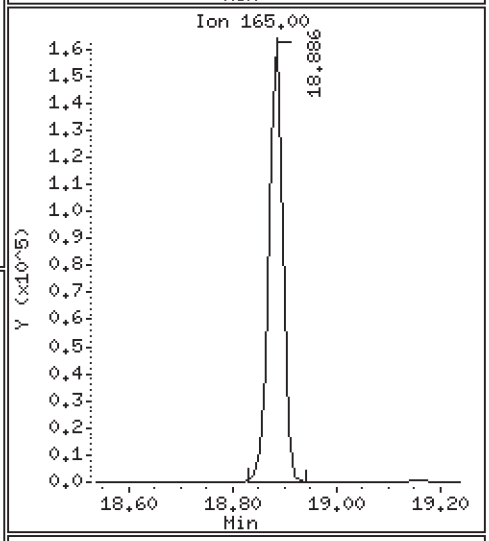
26 Fluorene

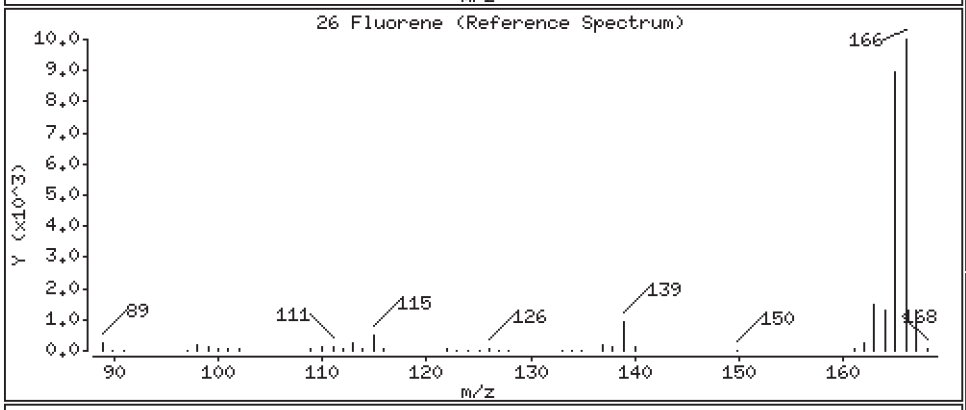
Concentration: 2.844 ug/mL

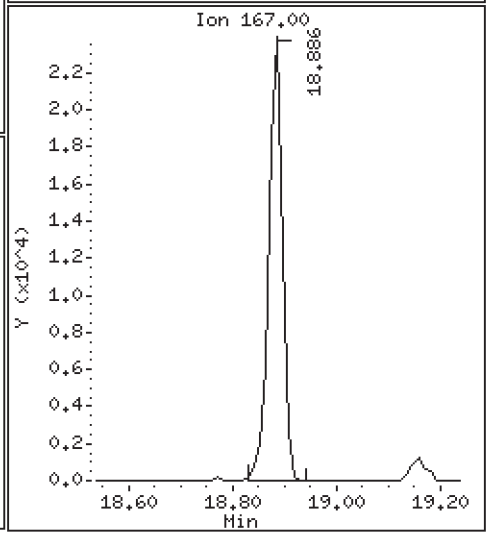


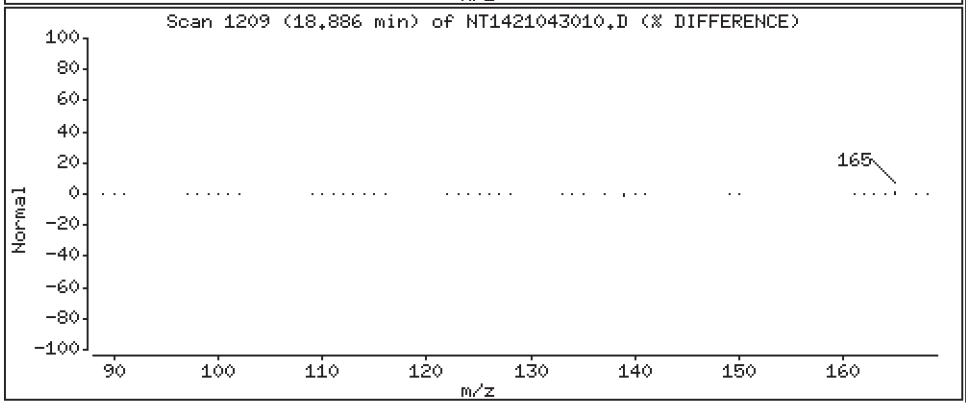












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

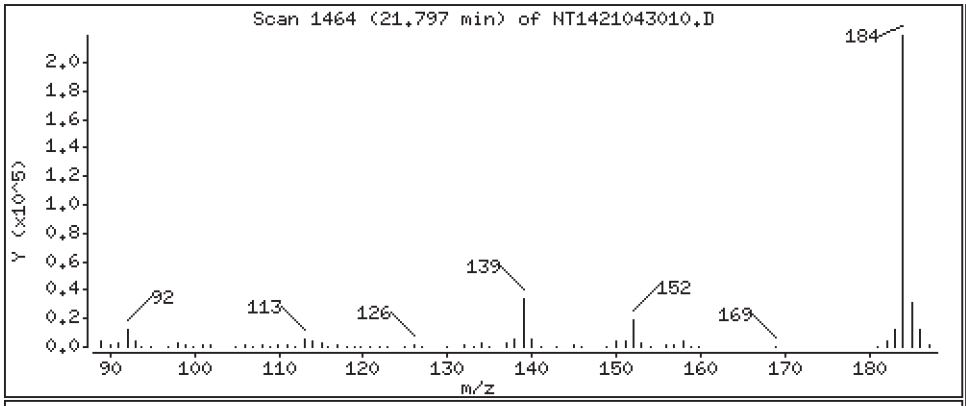
Operator: VTS

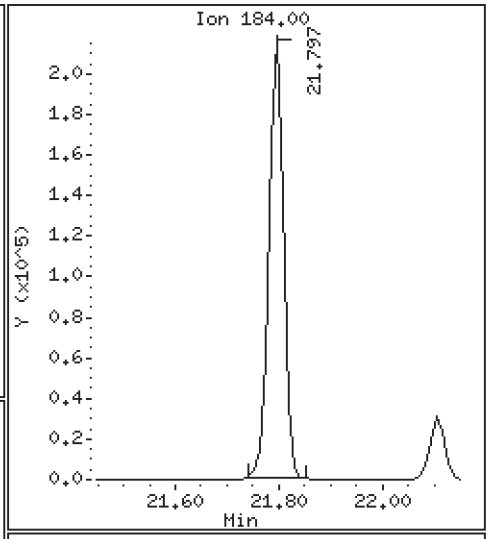
Column phase: Rxi-17Sil MS

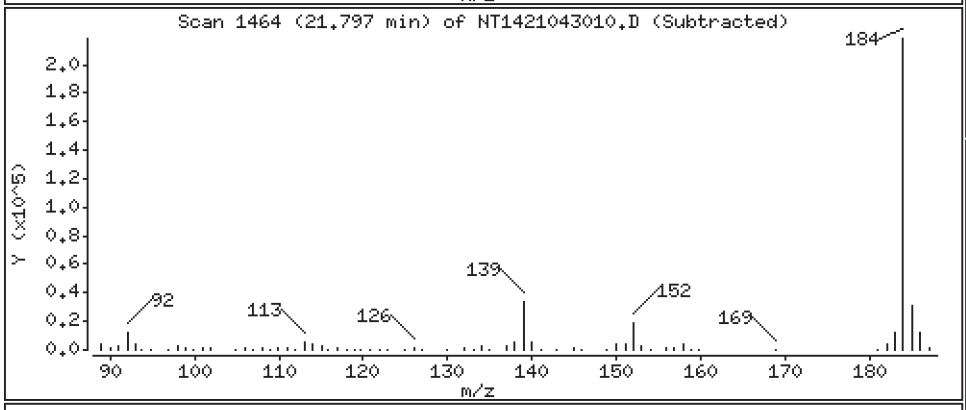
Column diameter: 0.25

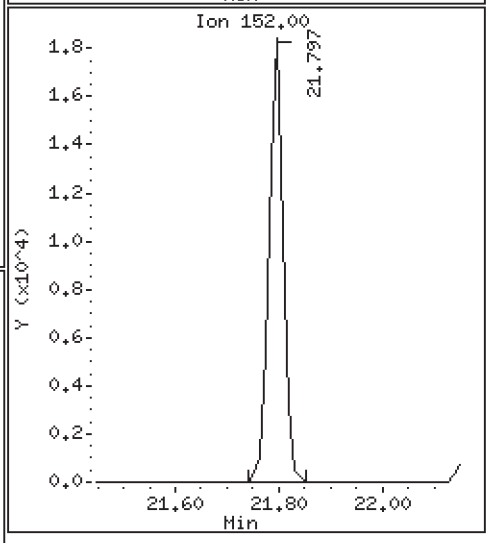
30 Dibenzothiophene

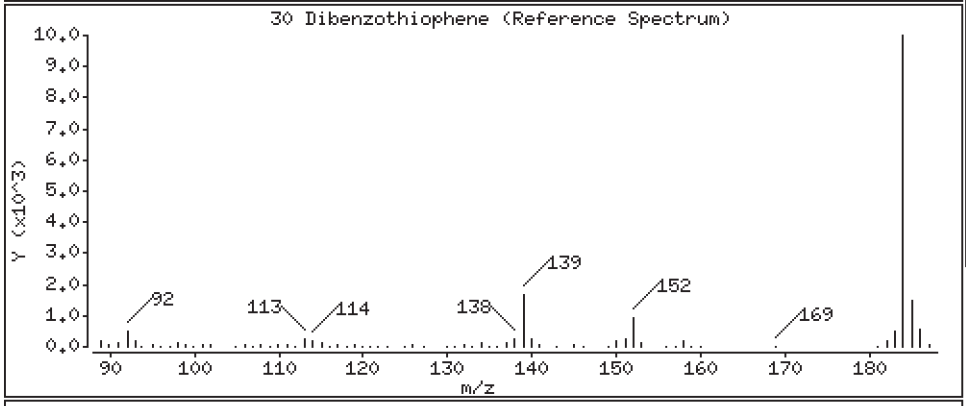
Concentration: 2.782 ug/mL

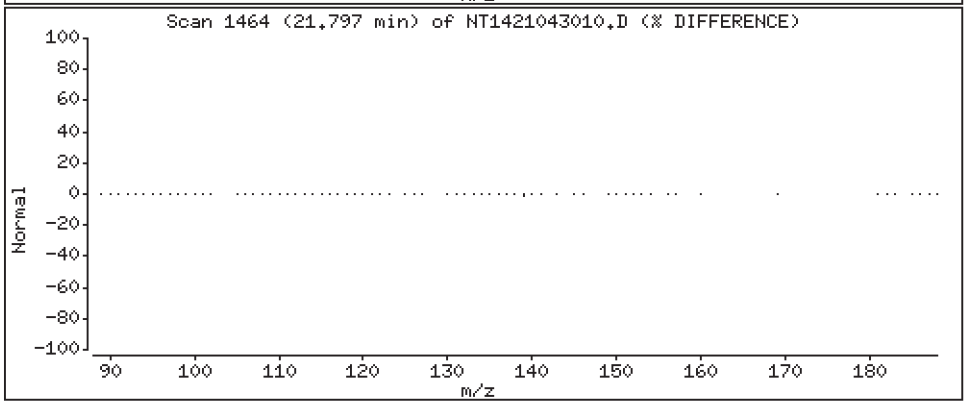












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

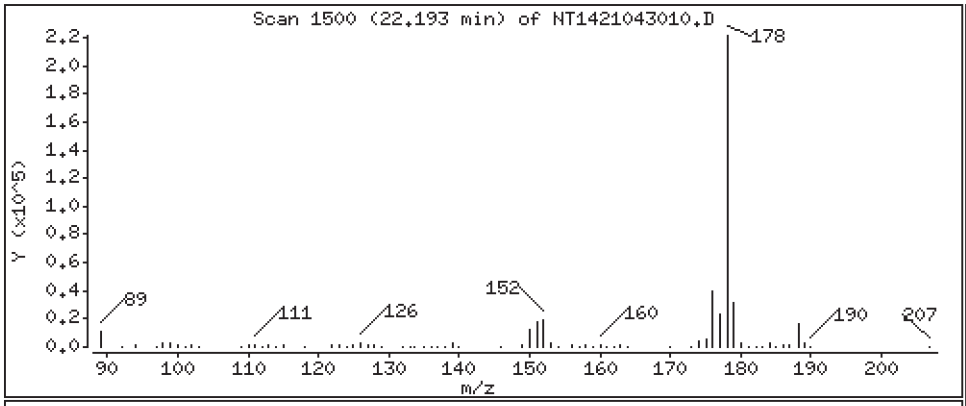
Operator: VTS

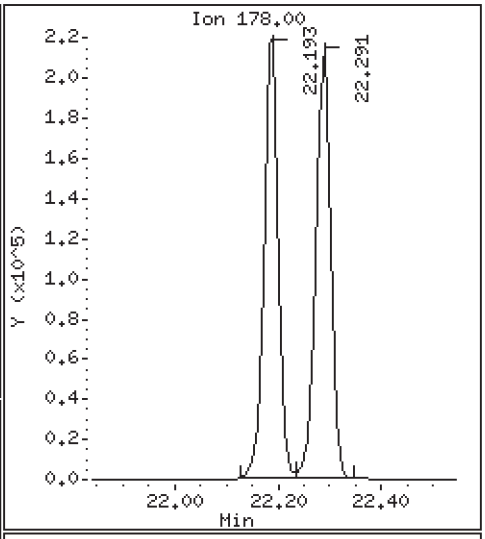
Column phase: Rxi-17Sil MS

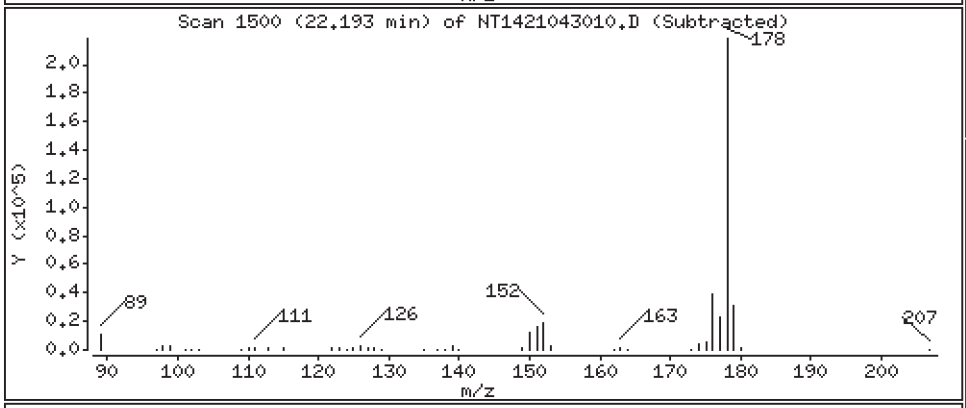
Column diameter: 0.25

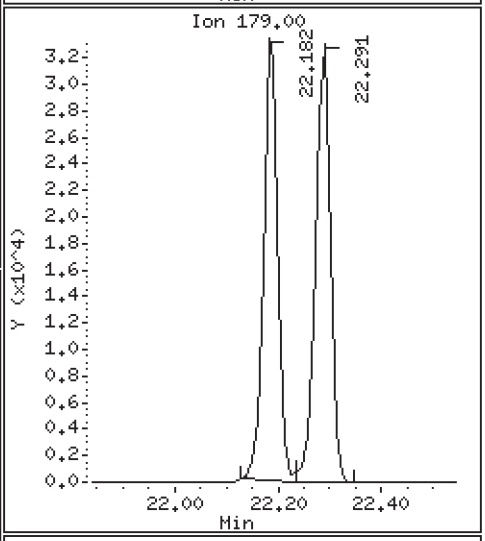
36 Phenanthrene

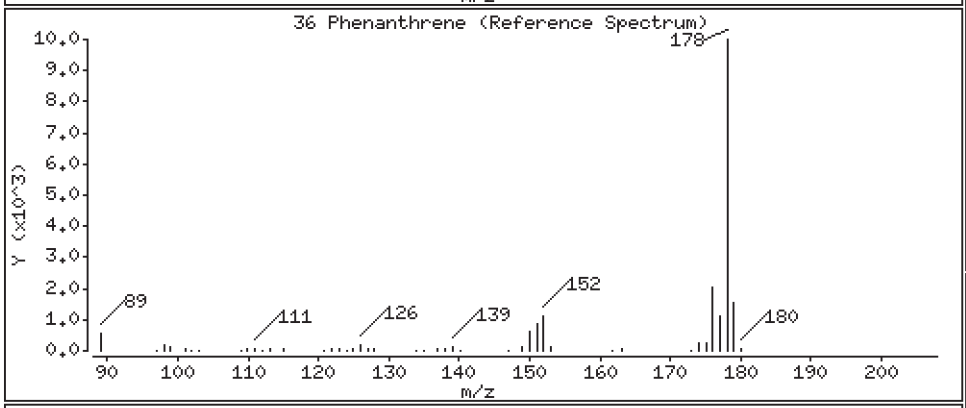
Concentration: 2.468 ug/mL

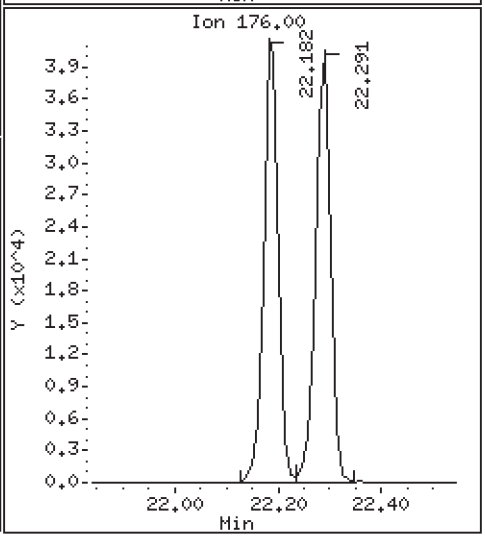


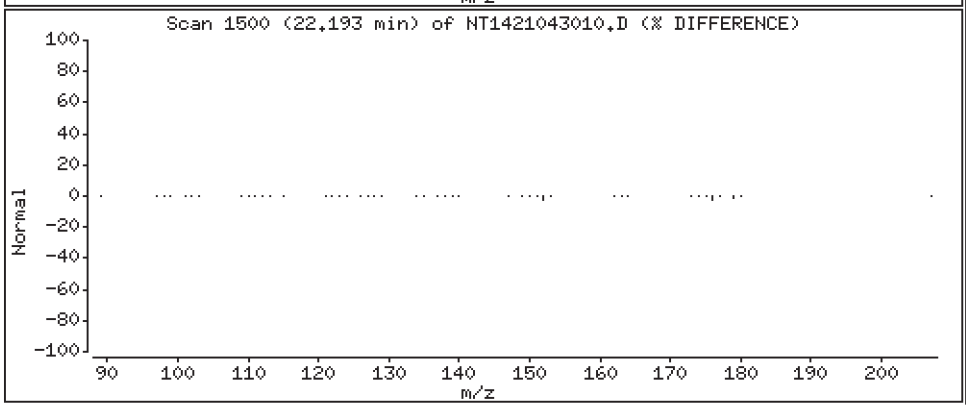












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

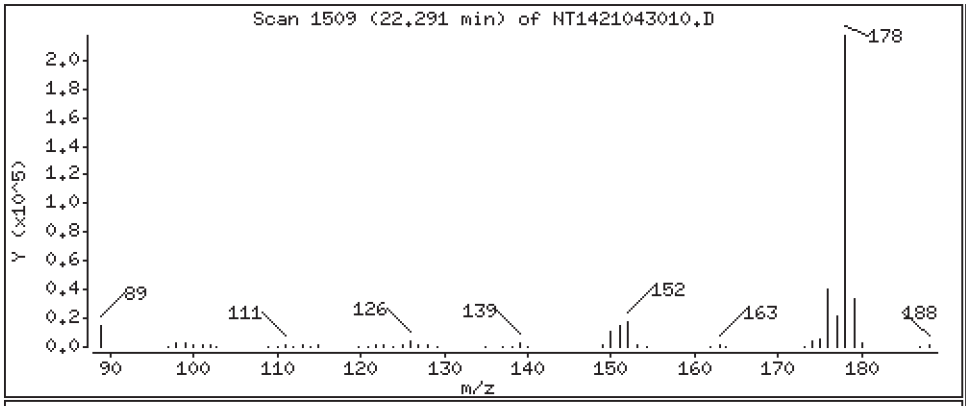
Operator: VTS

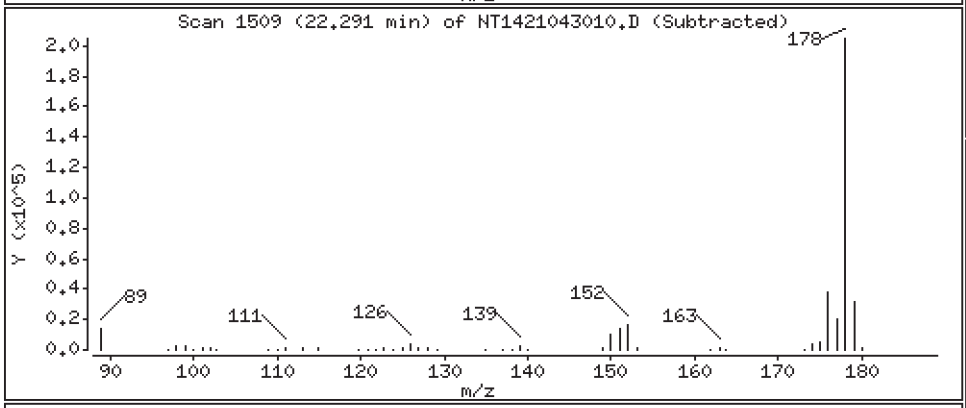
Column phase: Rxi-17Sil MS

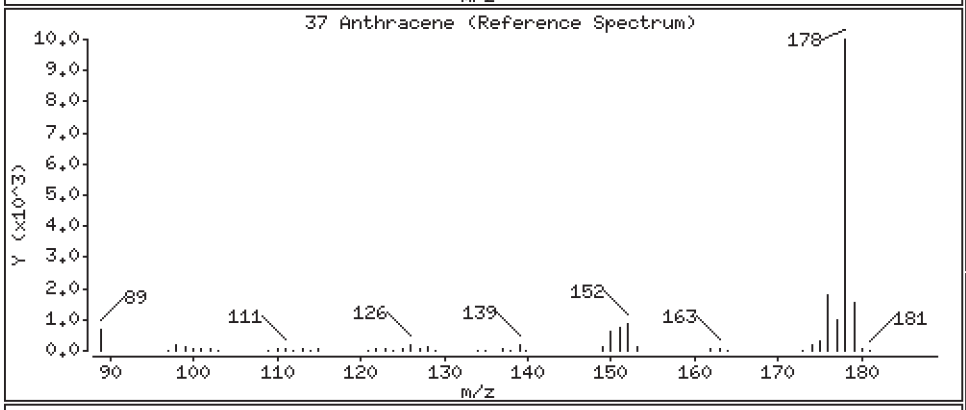
Column diameter: 0.25

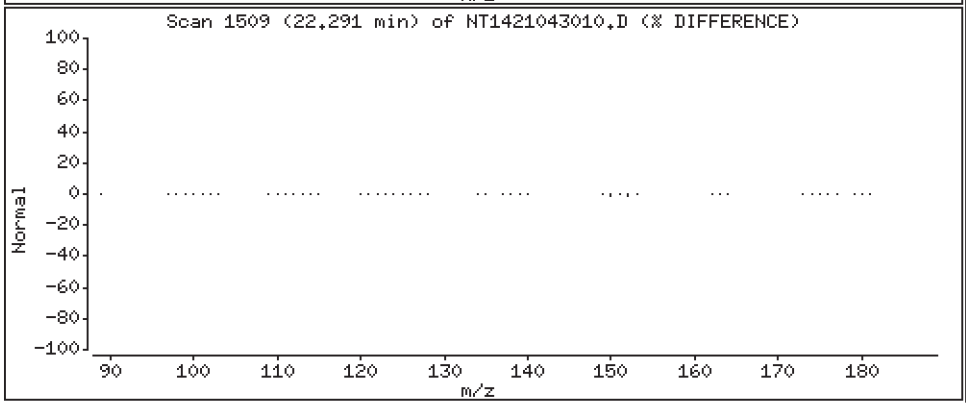
37 Anthracene

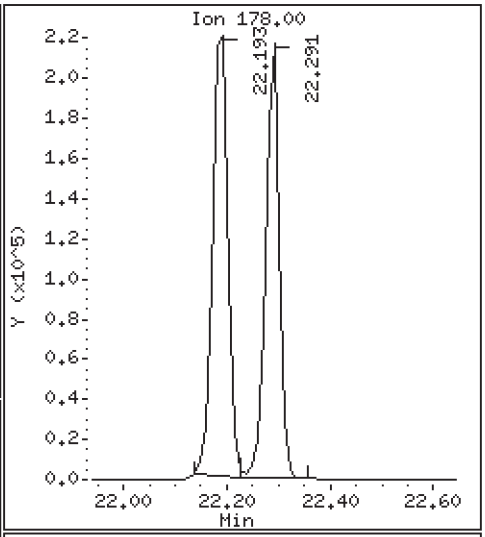
Concentration: 2.492 ug/mL

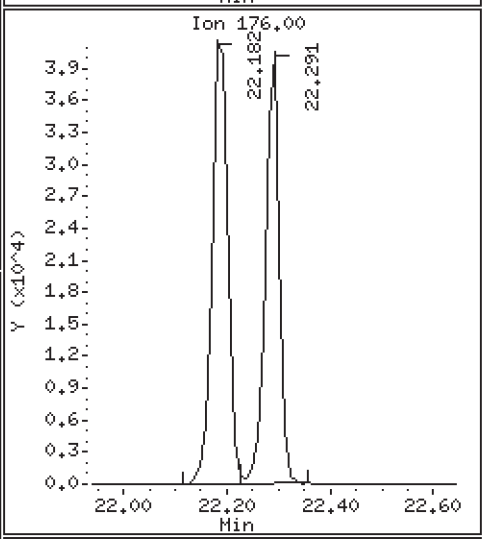


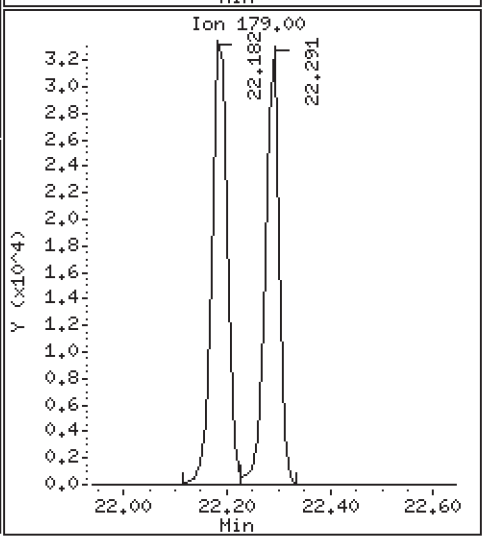












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

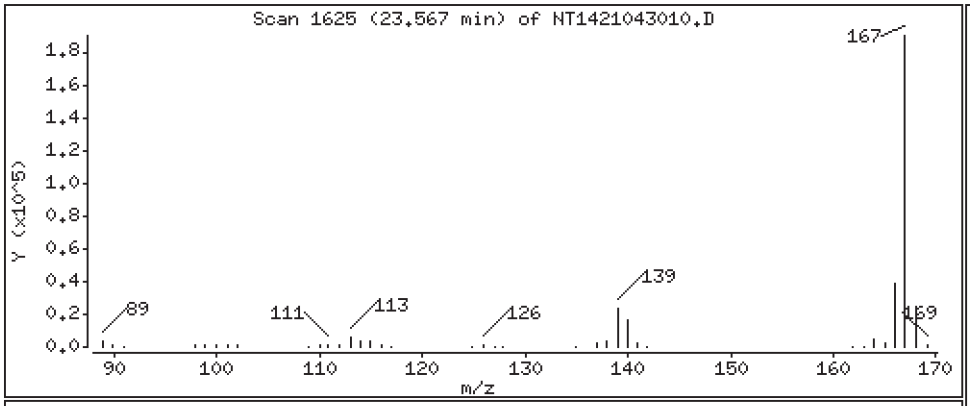
Operator: VTS

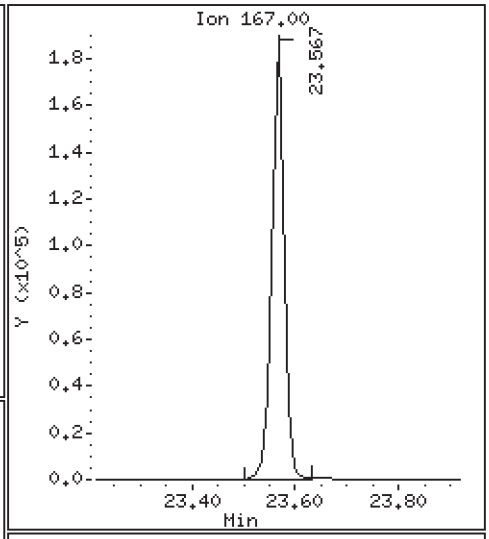
Column phase: Rxi-17Sil MS

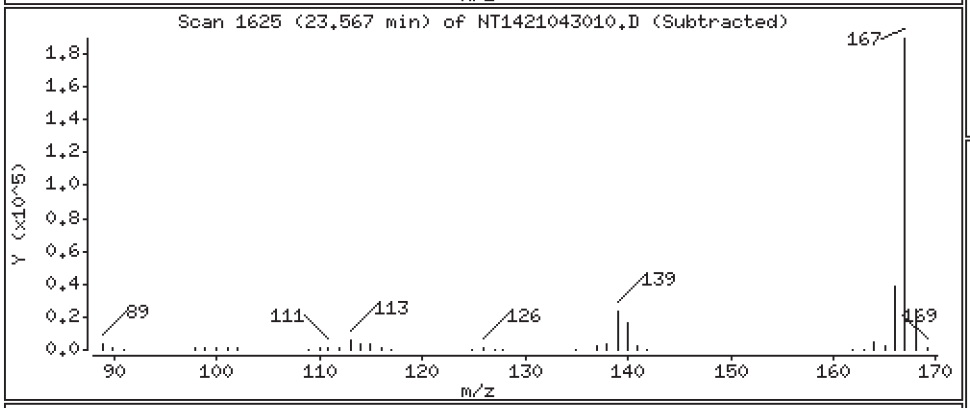
Column diameter: 0.25

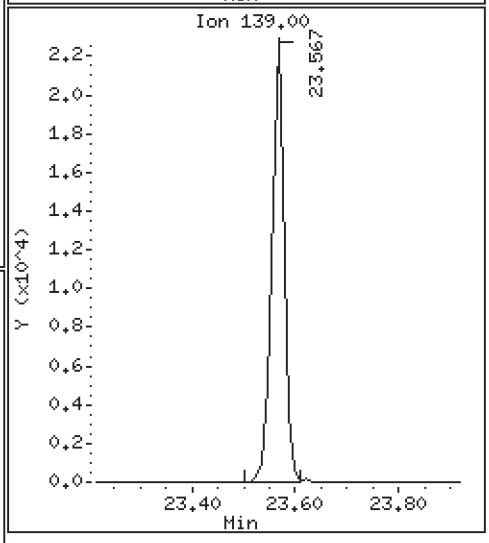
42 Carbazole

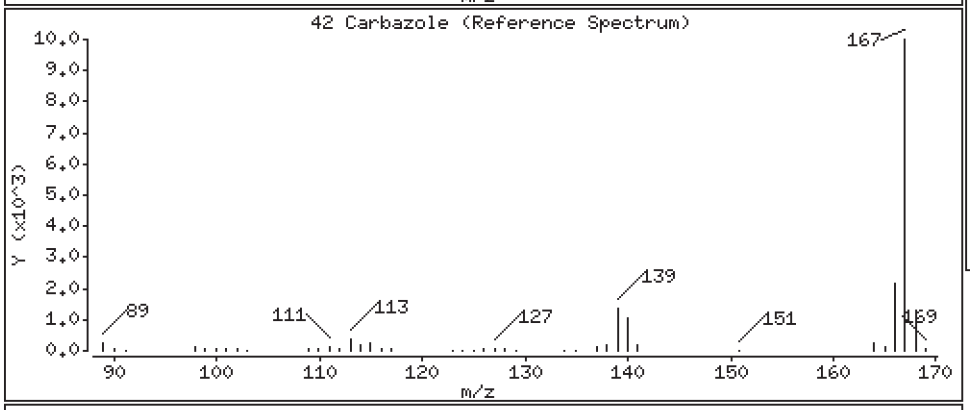
Concentration: 2.343 ug/mL

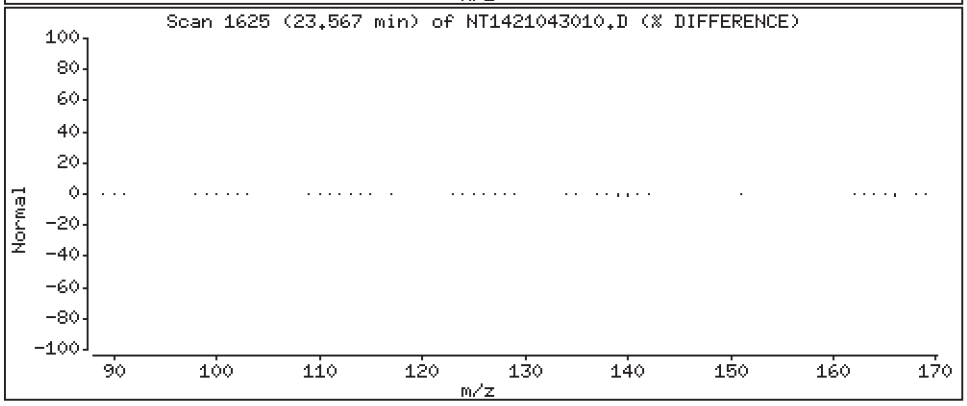












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

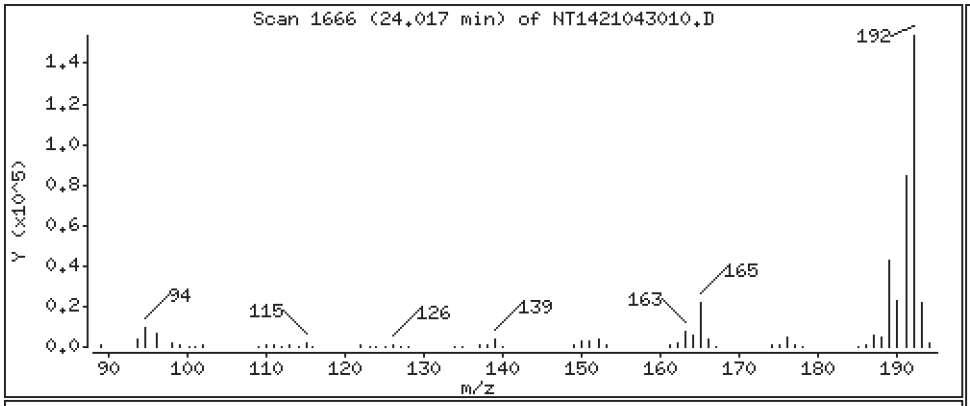
Operator: VTS

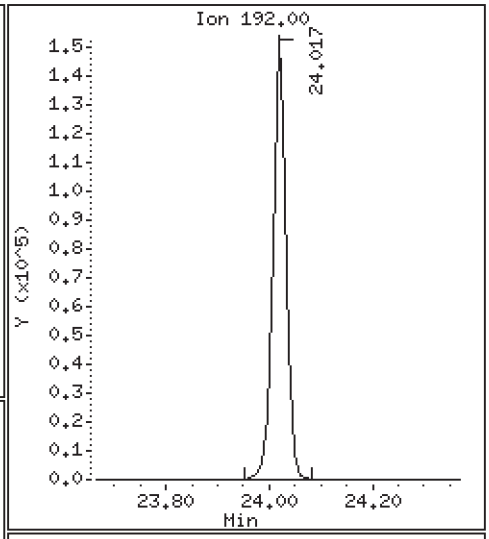
Column phase: Rxi-17Sil MS

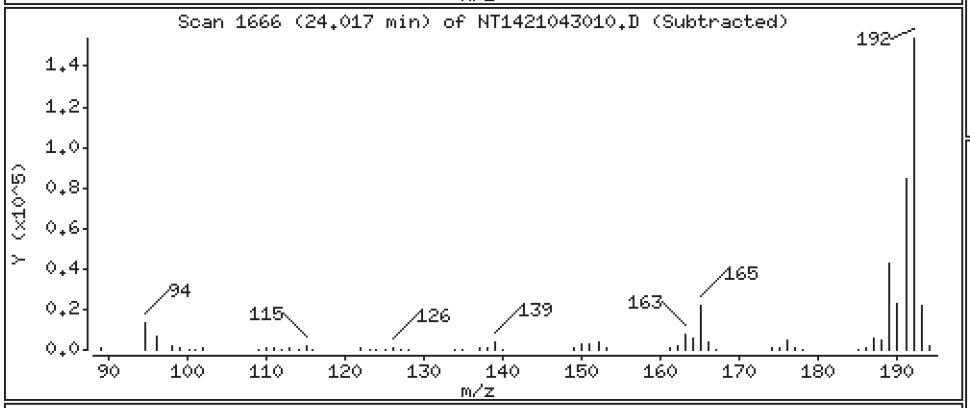
Column diameter: 0.25

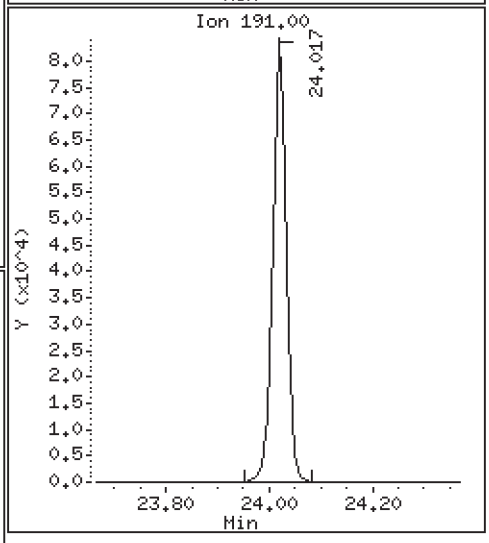
43 1-Methylphenanthrene

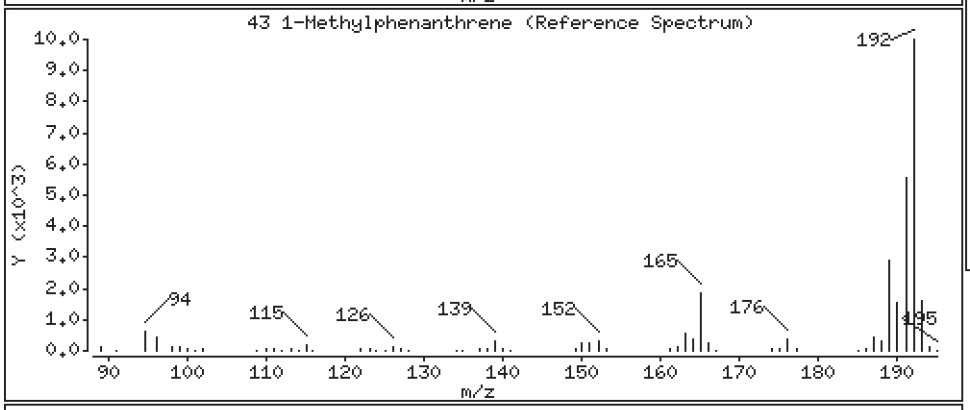
Concentration: 2.594 ug/mL

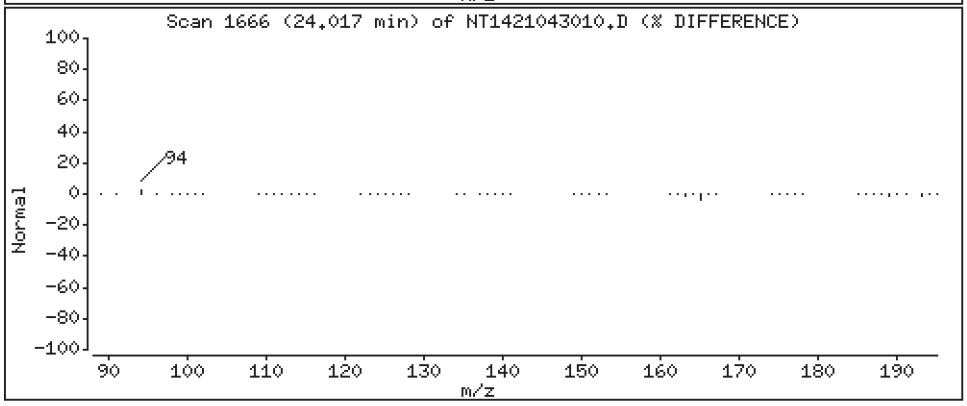












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

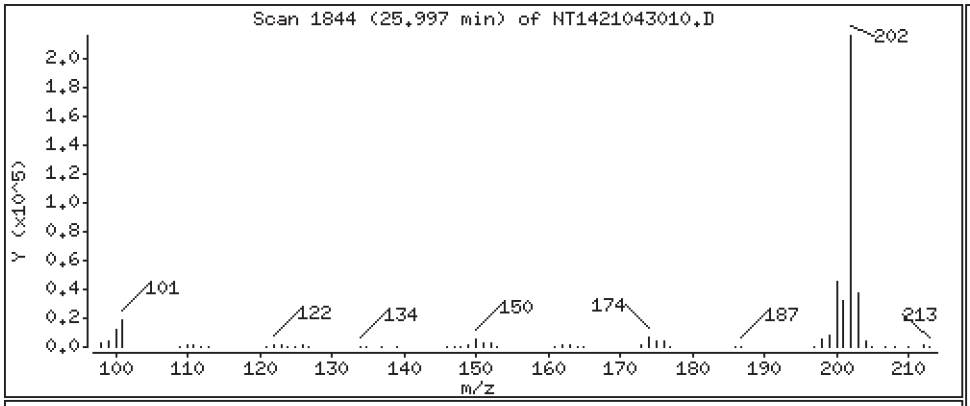
Operator: VTS

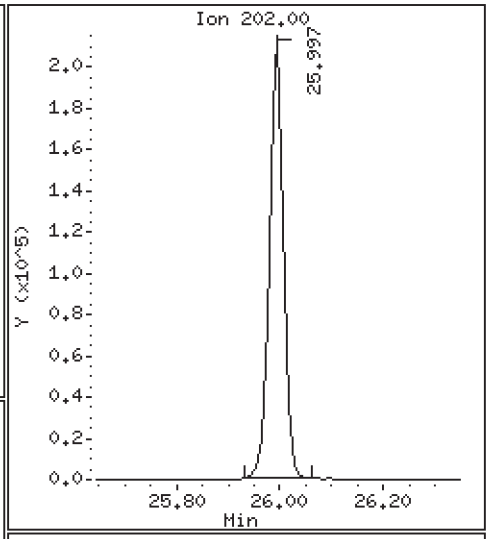
Column phase: Rxi-17Sil MS

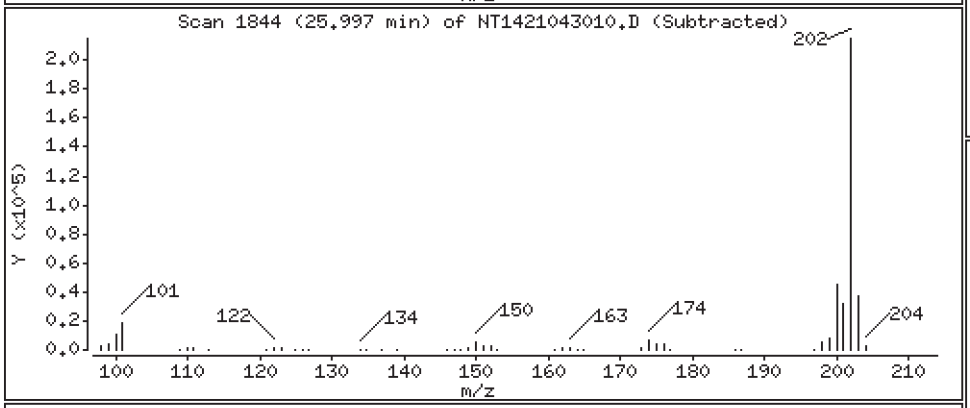
Column diameter: 0.25

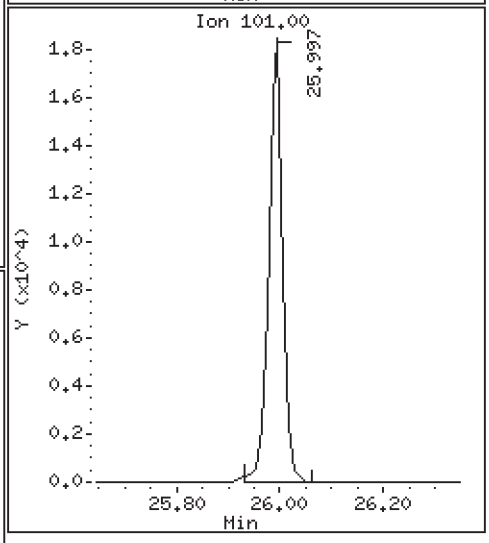
44 Fluoranthene

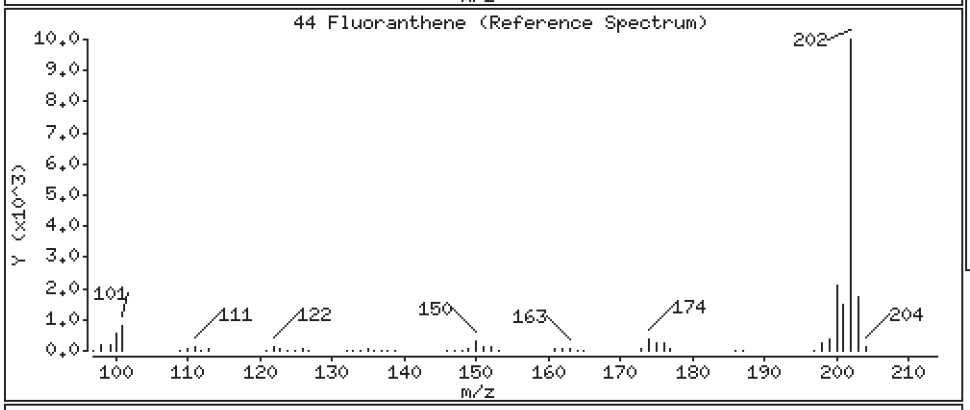
Concentration: 2.634 ug/mL

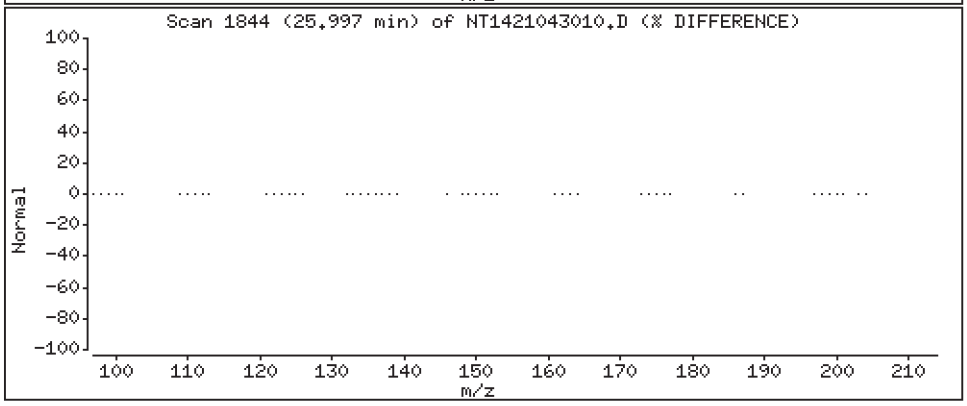












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

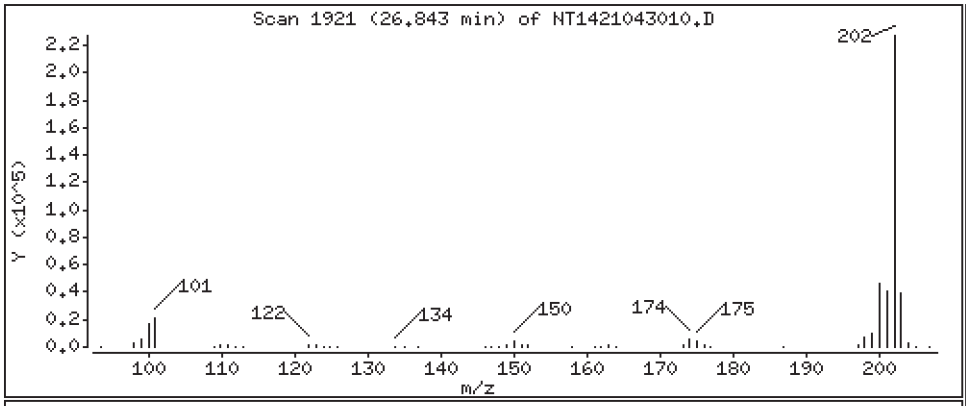
Operator: VTS

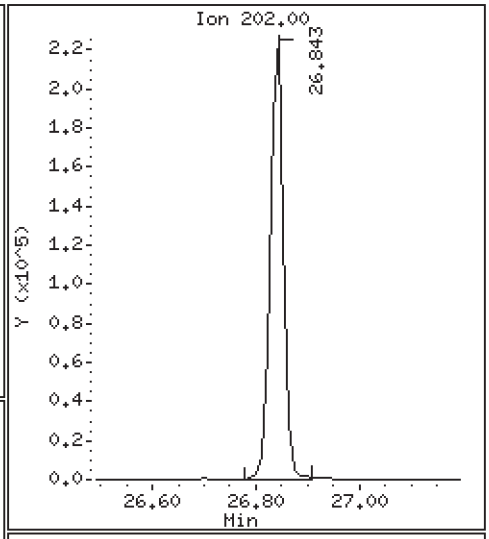
Column phase: Rxi-17Sil MS

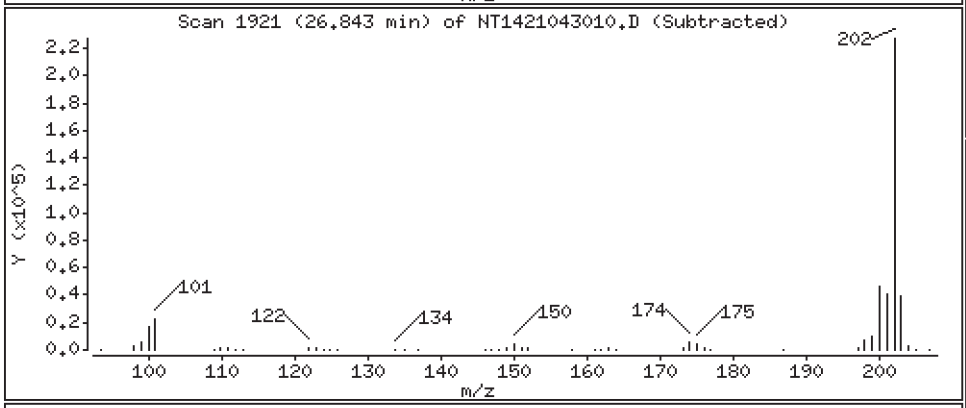
Column diameter: 0.25

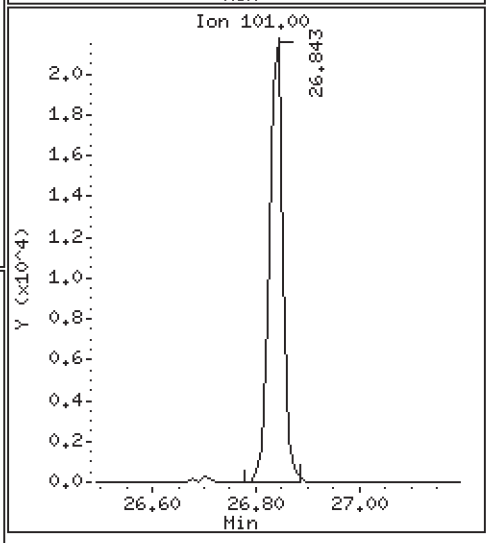
46 Pyrene

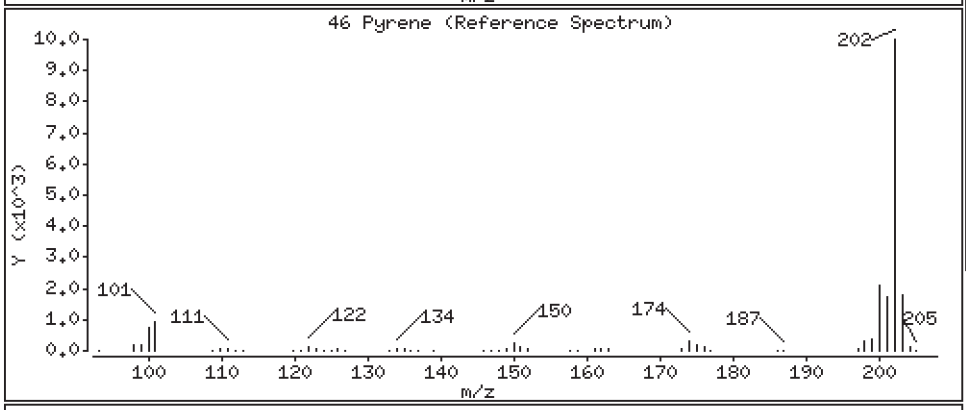
Concentration: 2.527 ug/mL

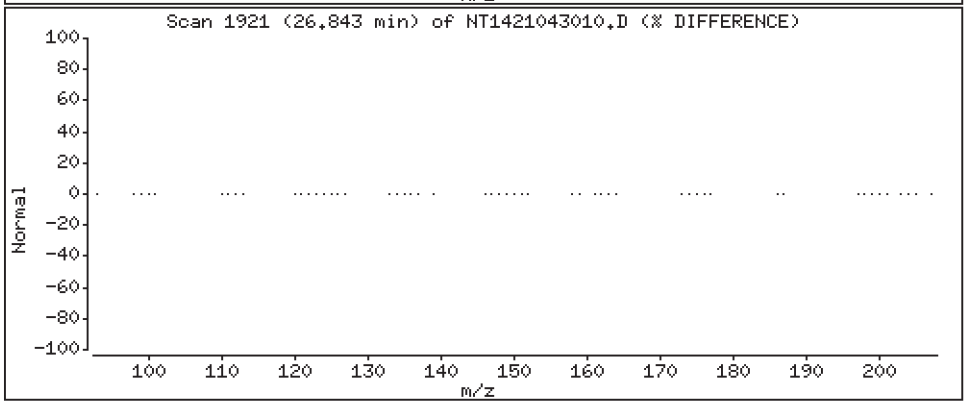












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

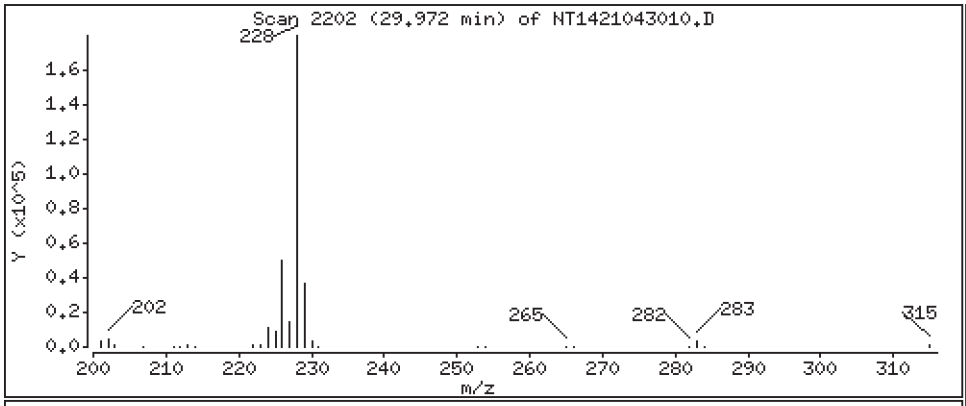
Operator: VTS

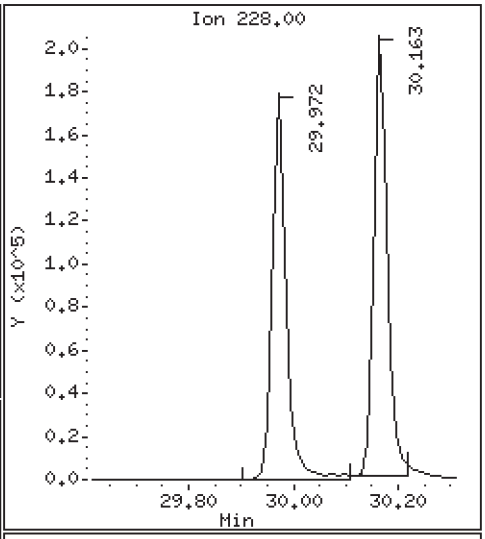
Column phase: Rxi-17Sil MS

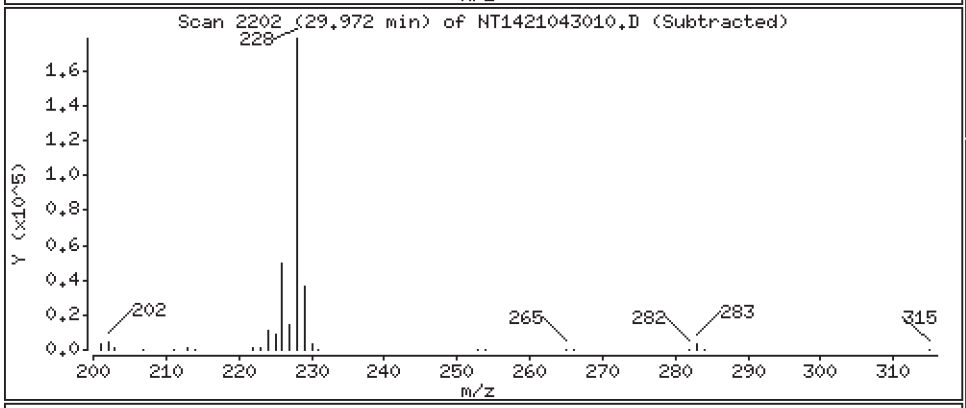
Column diameter: 0.25

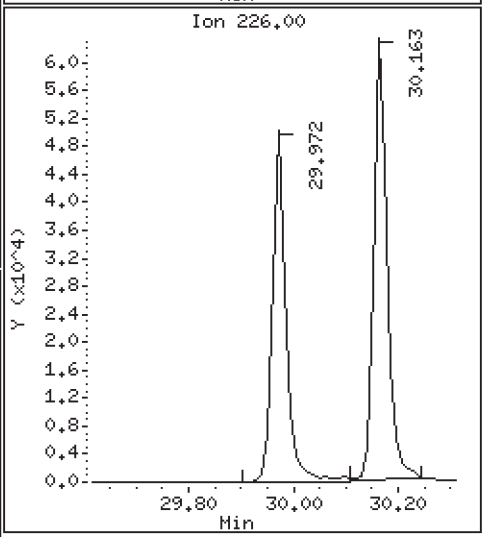
55 Benzo(a)anthracene

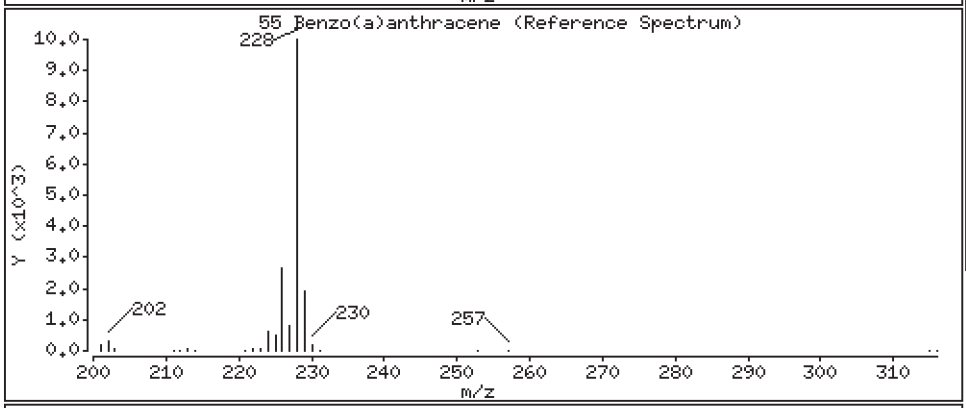
Concentration: 2.278 ug/mL

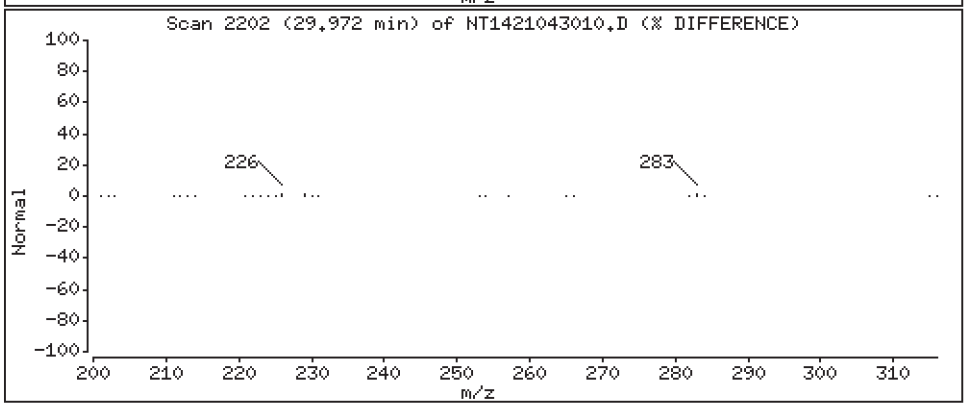












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

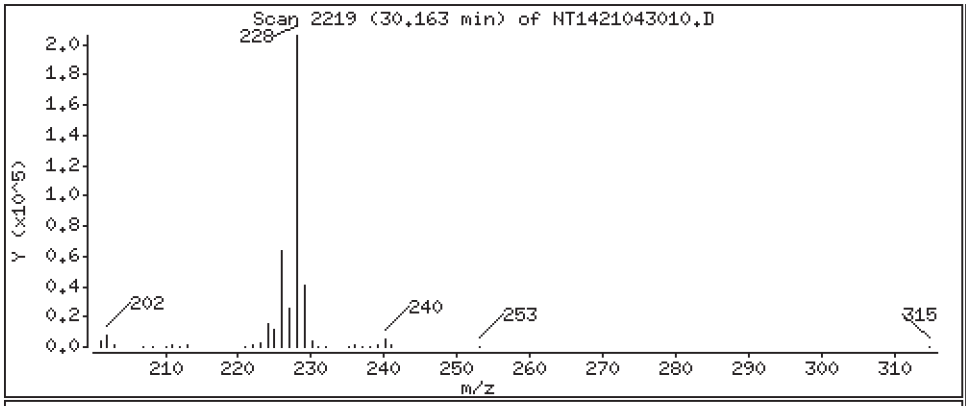
Operator: VTS

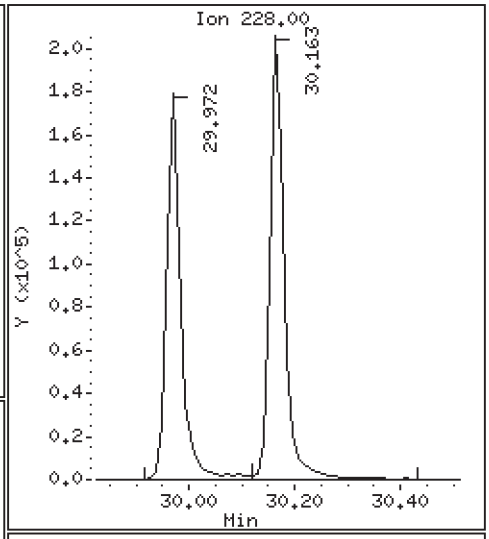
Column phase: Rxi-17Sil MS

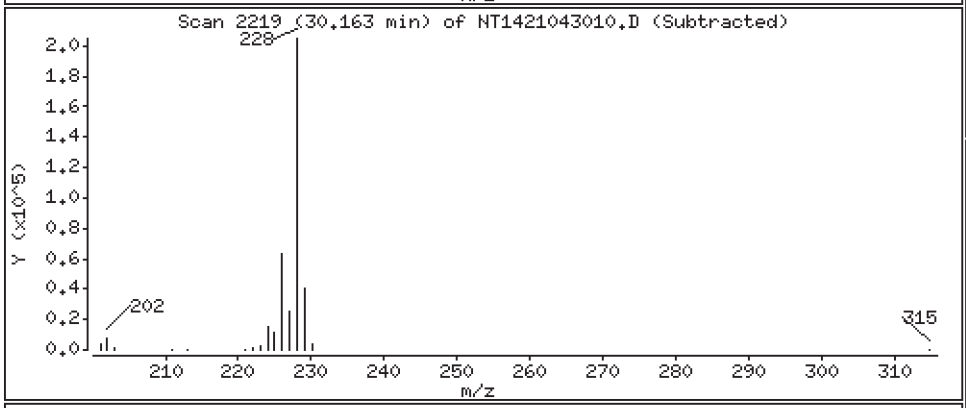
Column diameter: 0.25

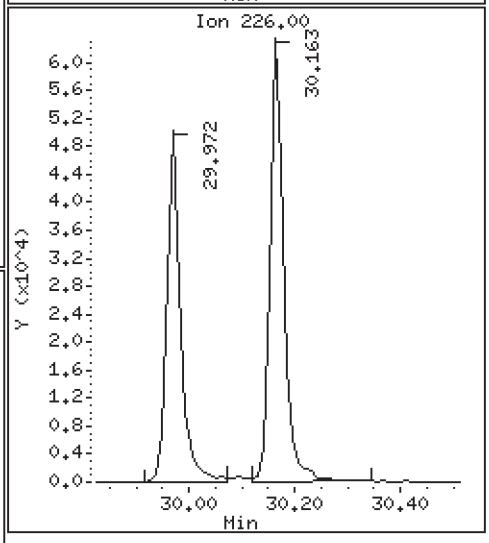
57 Chrysene

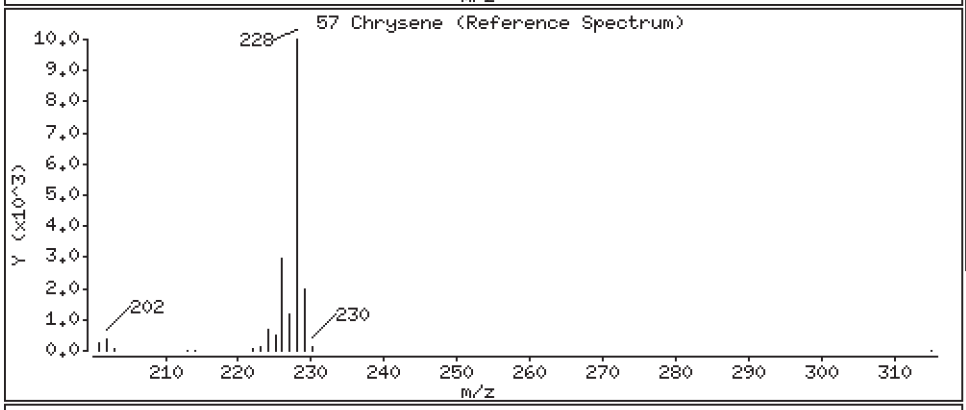
Concentration: 2.574 ug/mL

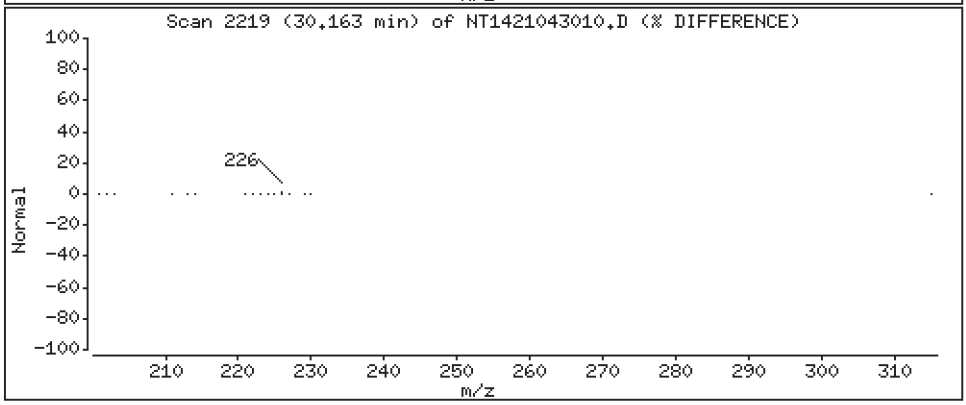












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

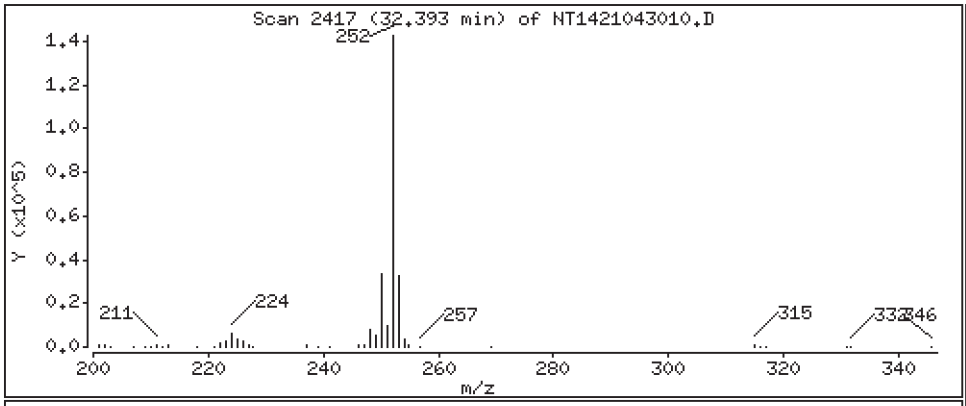
Operator: VTS

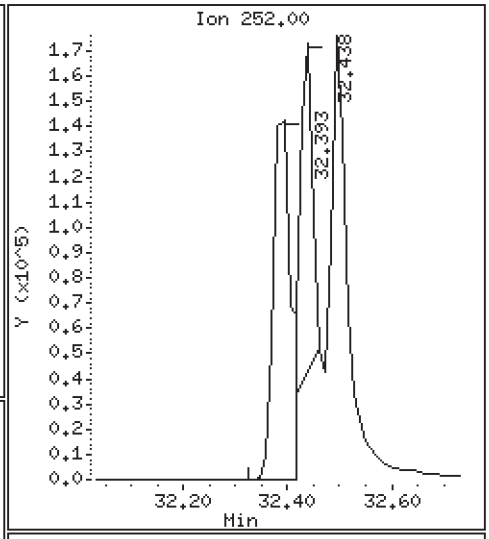
Column phase: Rxi-17Sil MS

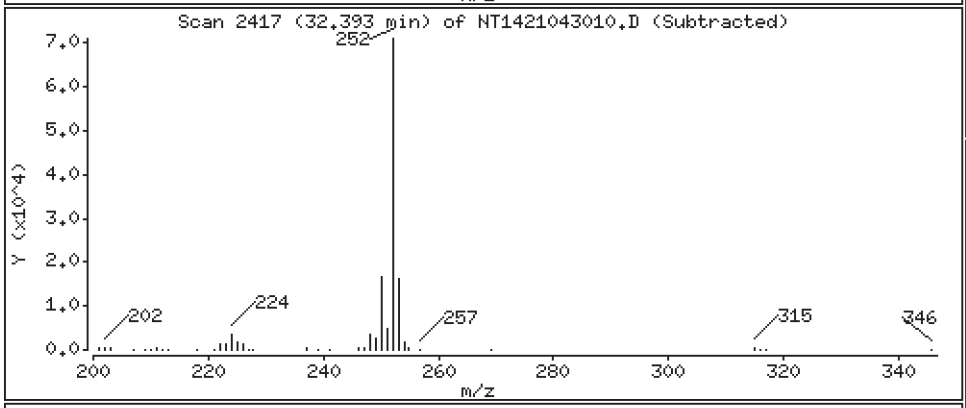
Column diameter: 0.25

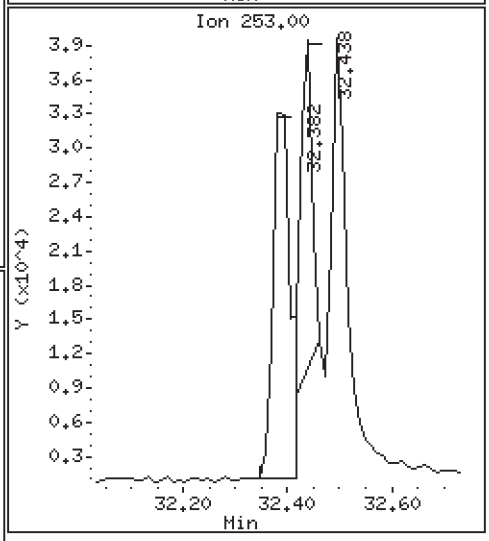
62 Benzo(b)fluoranthene

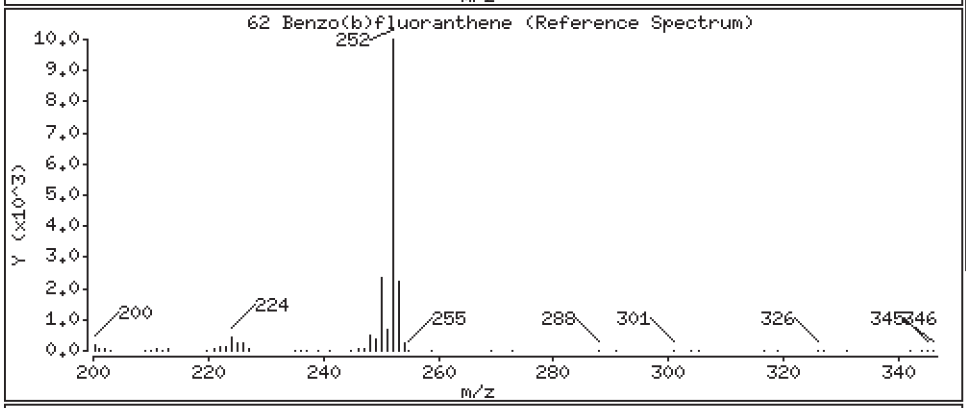
Concentration: 2.326 ug/mL

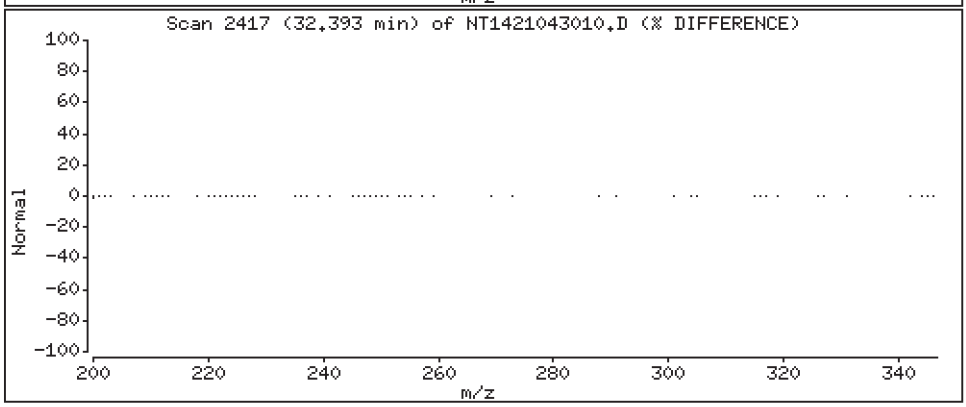












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

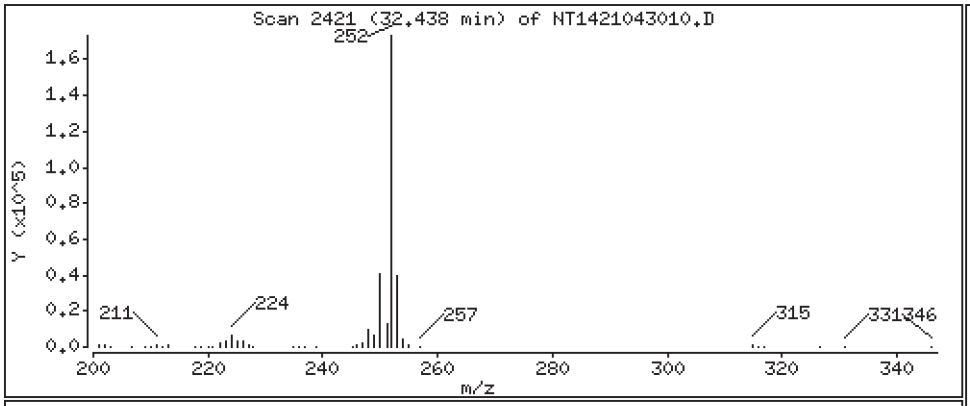
Operator: VTS

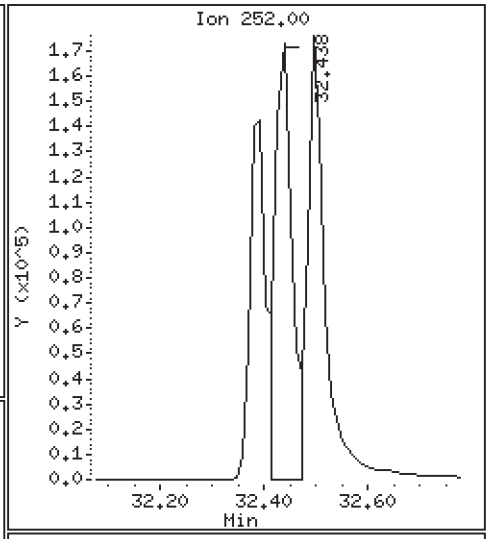
Column phase: Rxi-17Sil MS

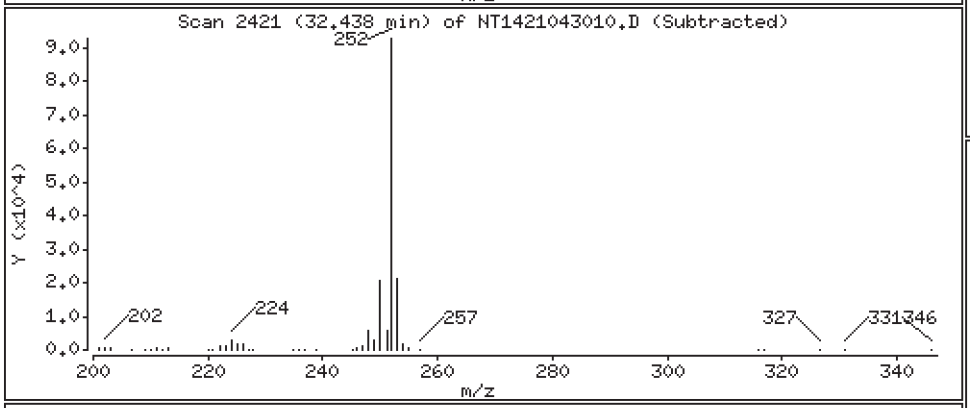
Column diameter: 0.25

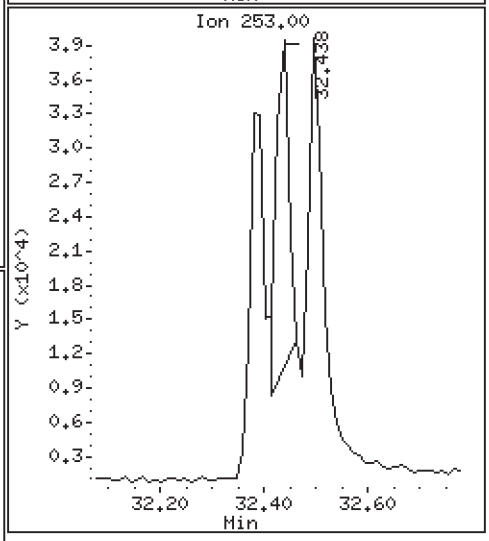
63 Benzo(k)fluoranthene

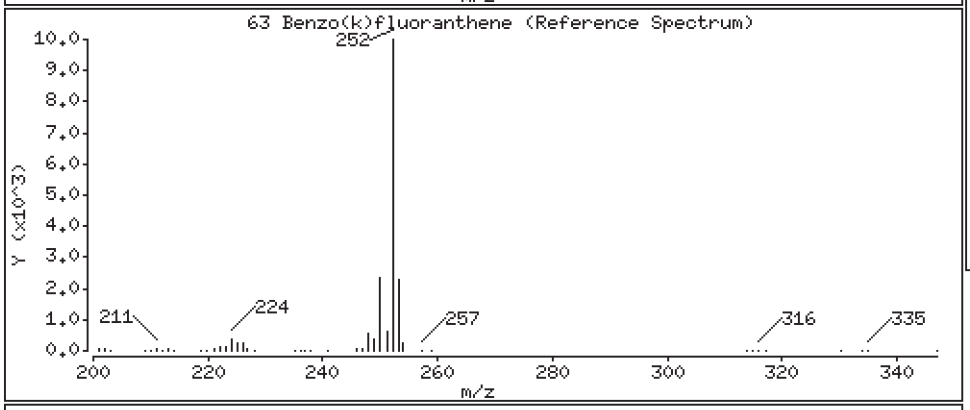
Concentration: 2.304 ug/mL

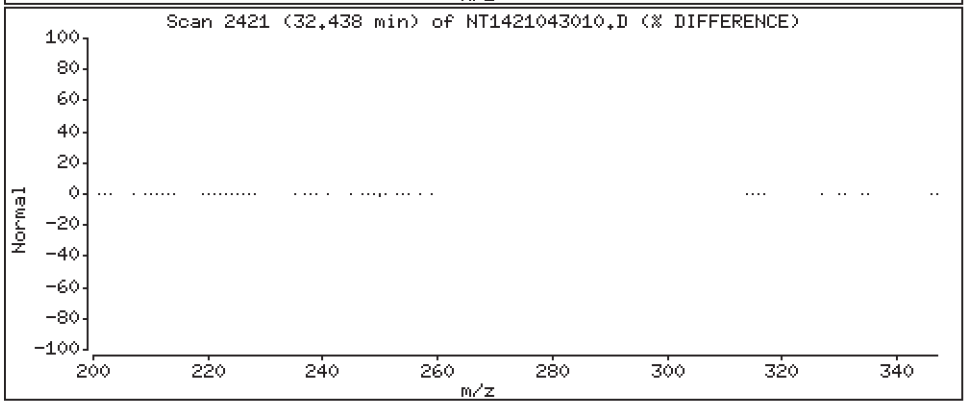












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

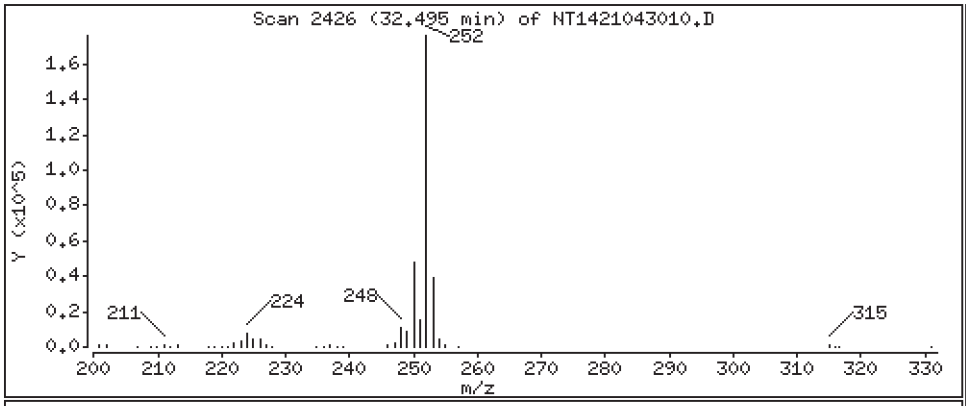
Operator: VTS

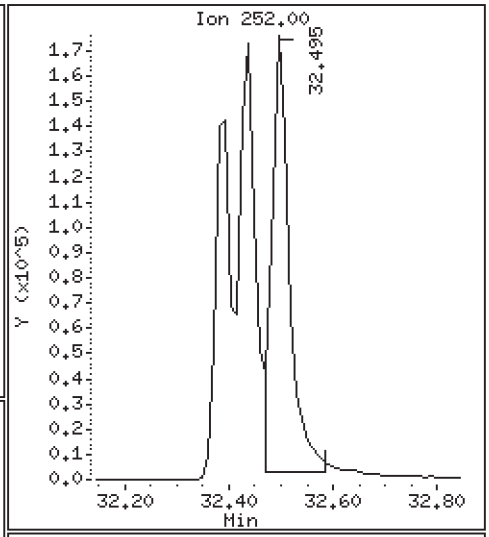
Column phase: Rxi-17Sil MS

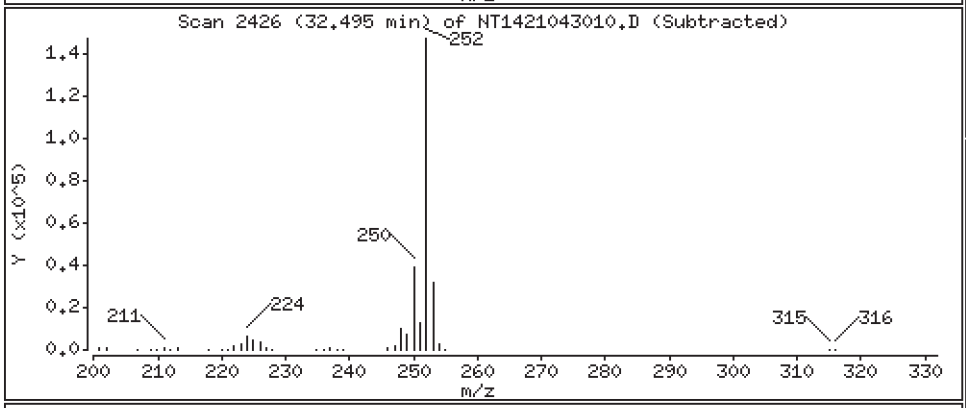
Column diameter: 0.25

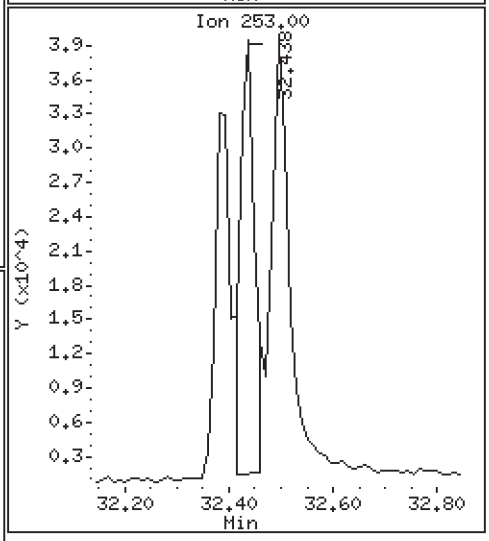
293 Benzo(j)fluoranthene

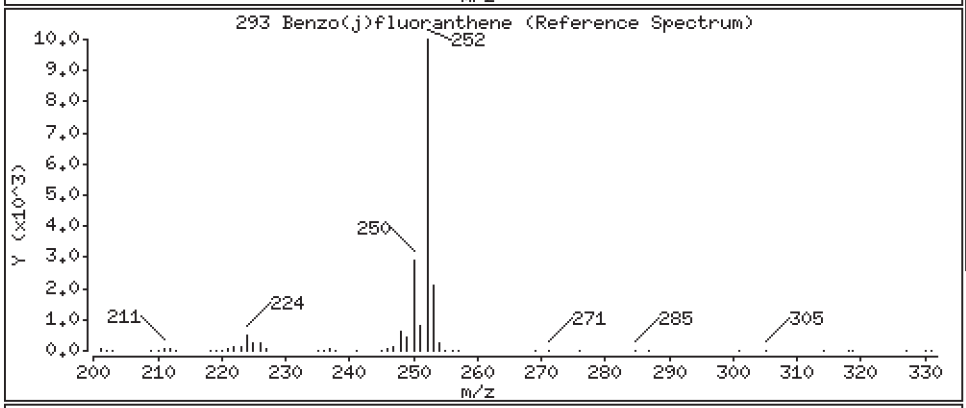
Concentration: 2.516 ug/mL

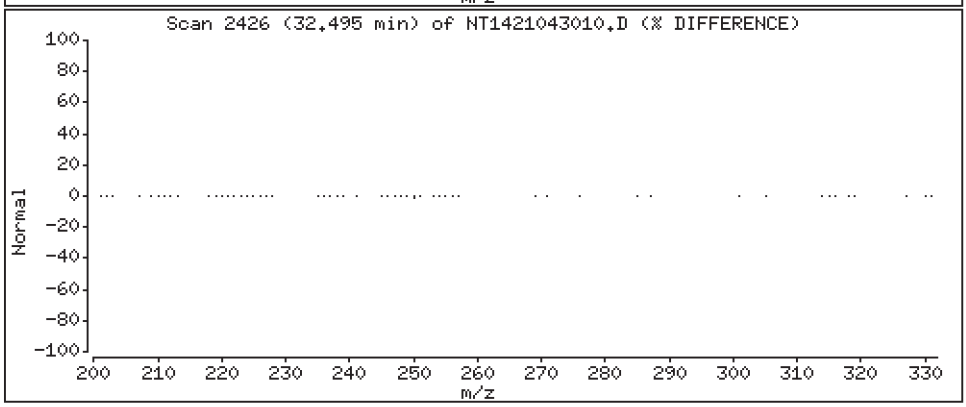












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

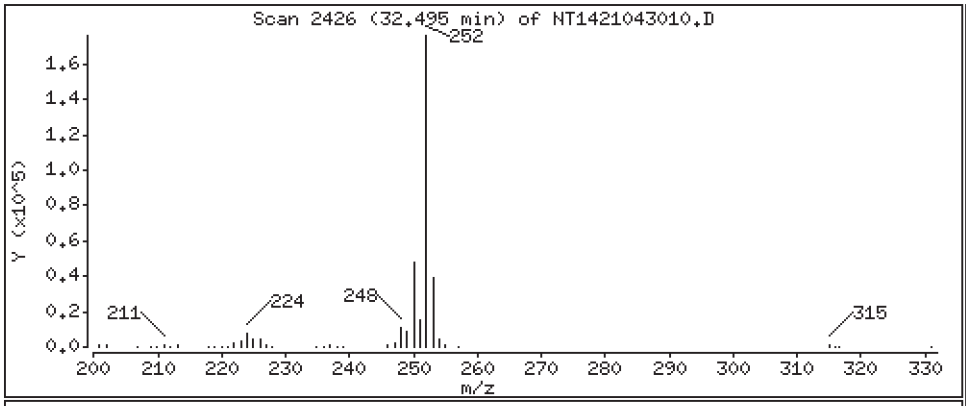
Operator: VTS

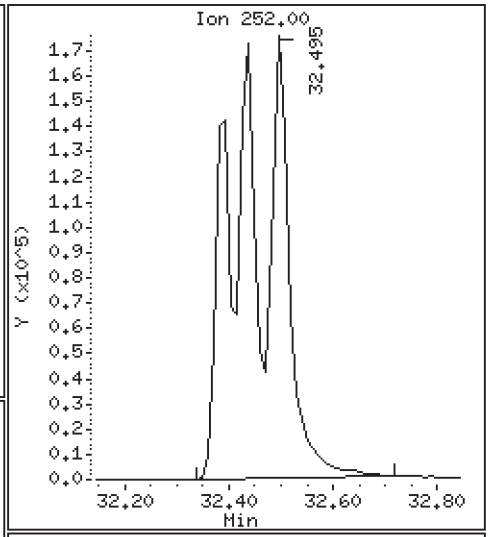
Column phase: Rxi-17Sil MS

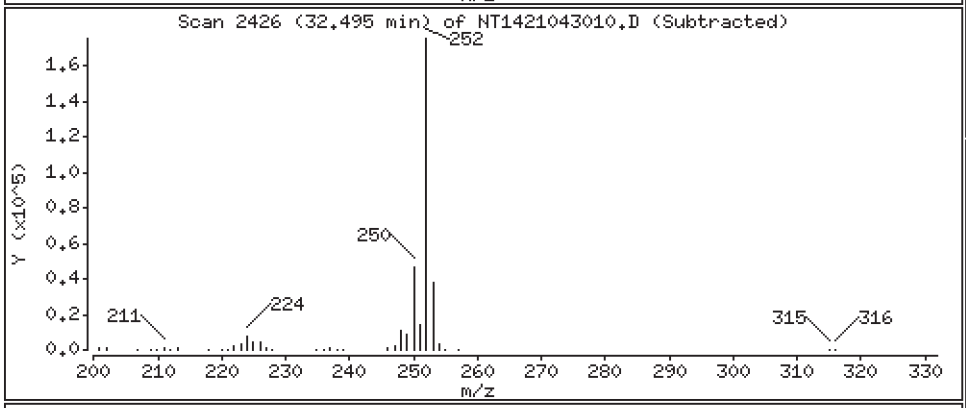
Column diameter: 0.25

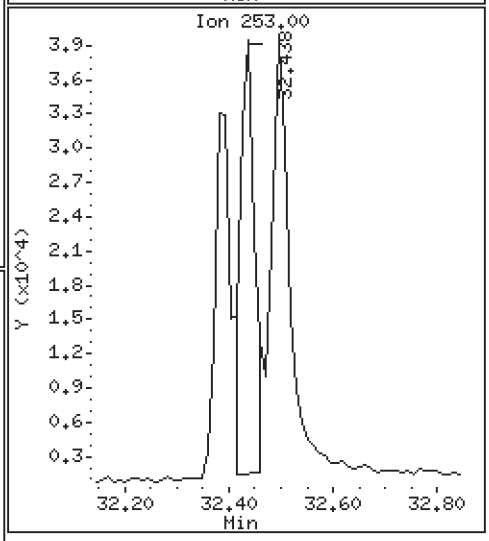
246 Total Benzofluoranthenes

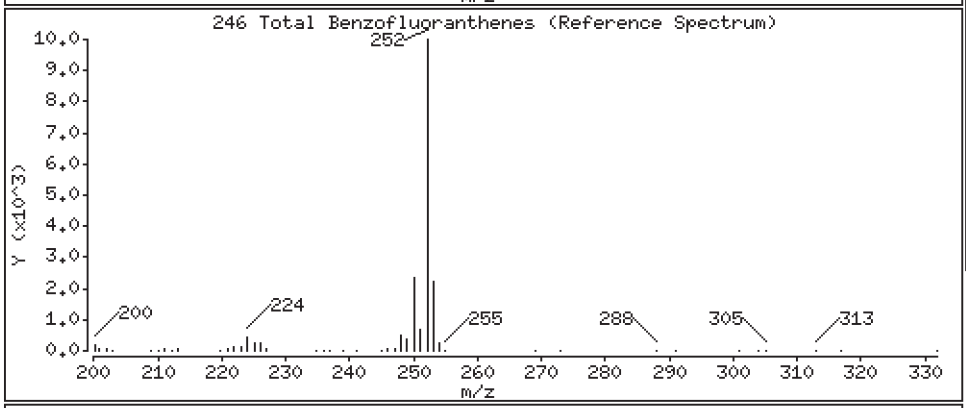
Concentration: 6.960 ug/mL

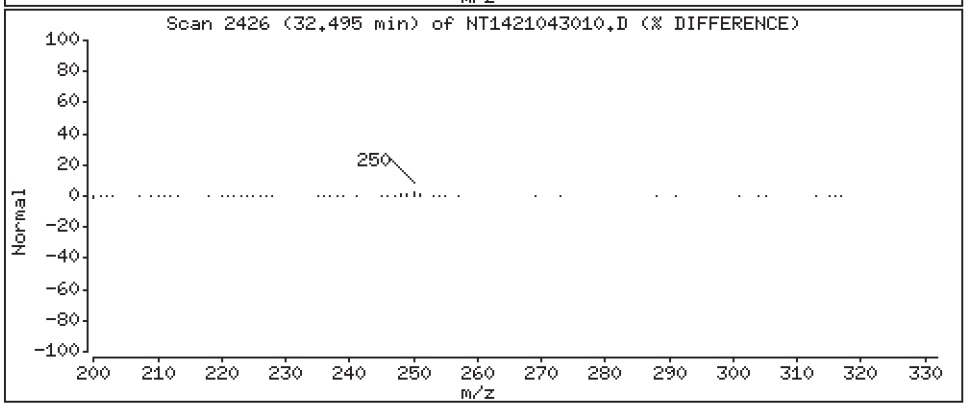












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

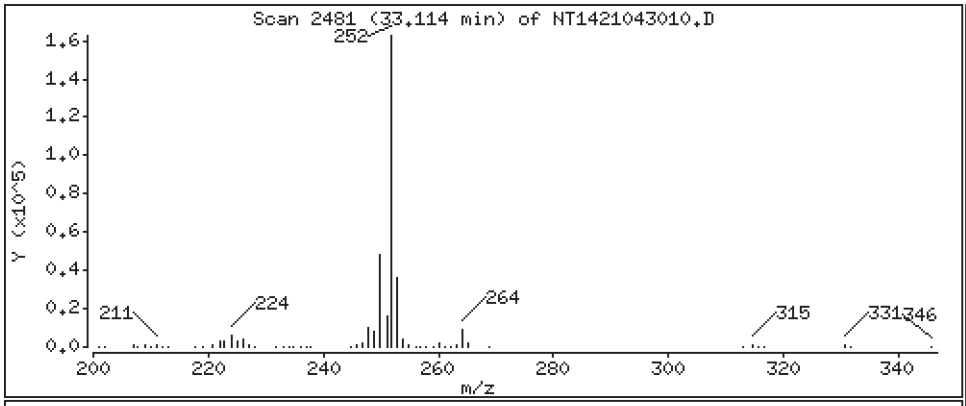
Operator: VTS

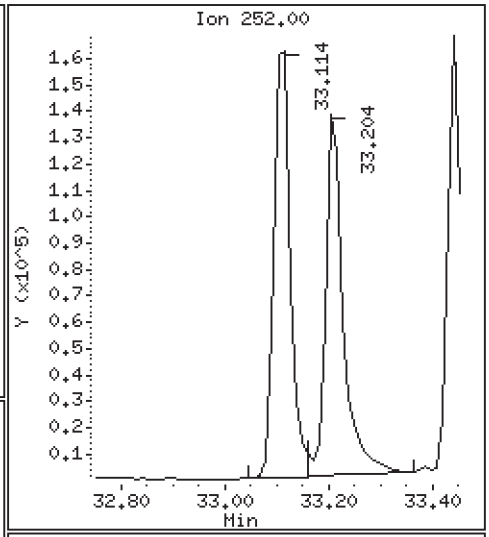
Column phase: Rxi-17Sil MS

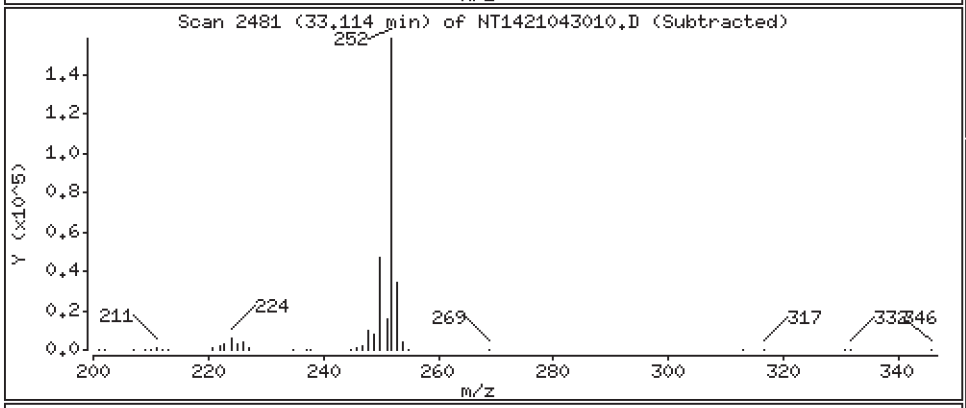
Column diameter: 0.25

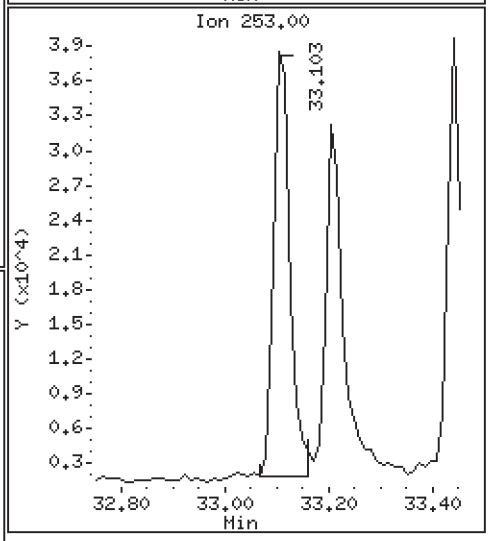
64 Benzo(e)pyrene

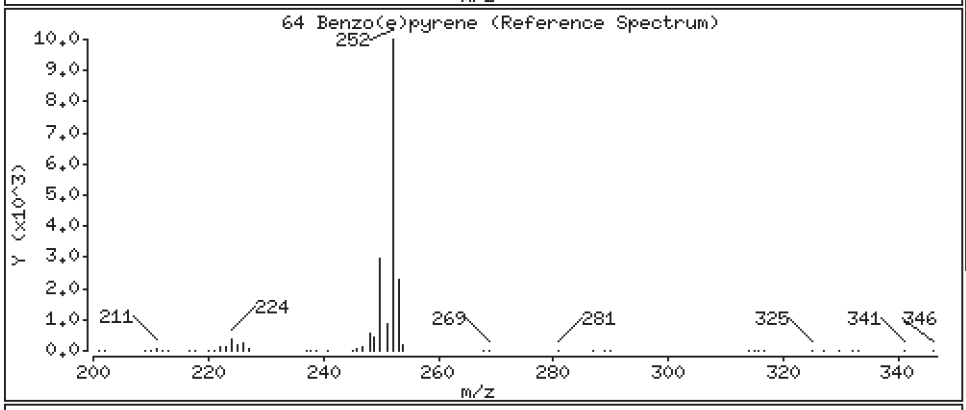
Concentration: 2.454 ug/mL

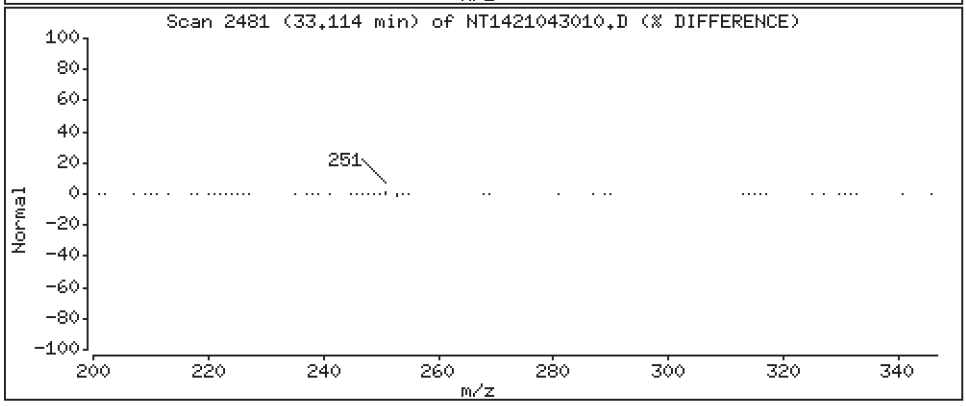












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

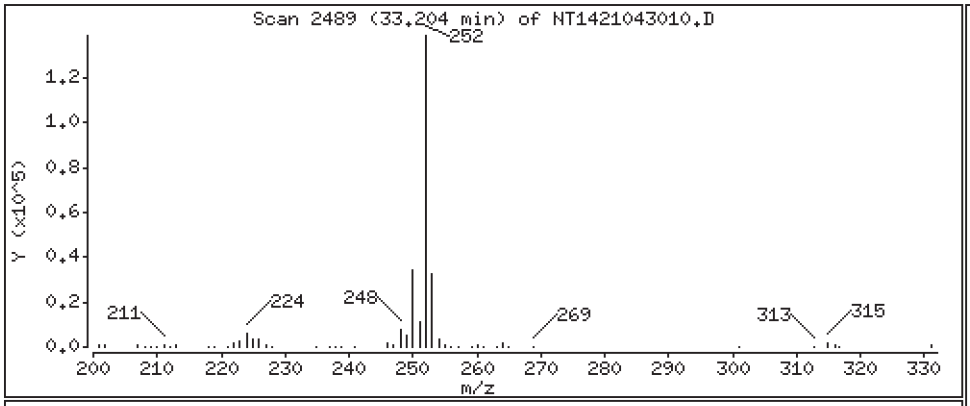
Operator: VTS

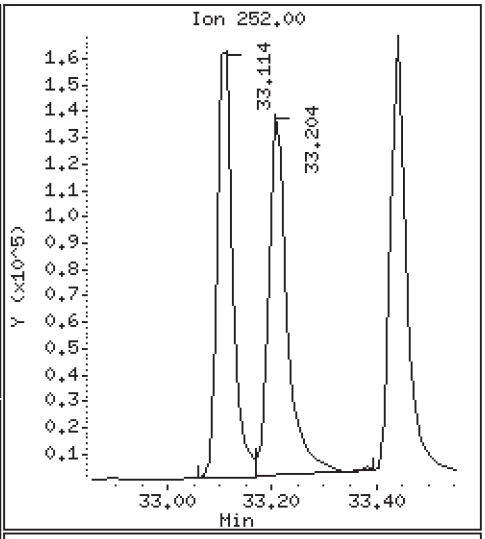
Column phase: Rxi-17Sil MS

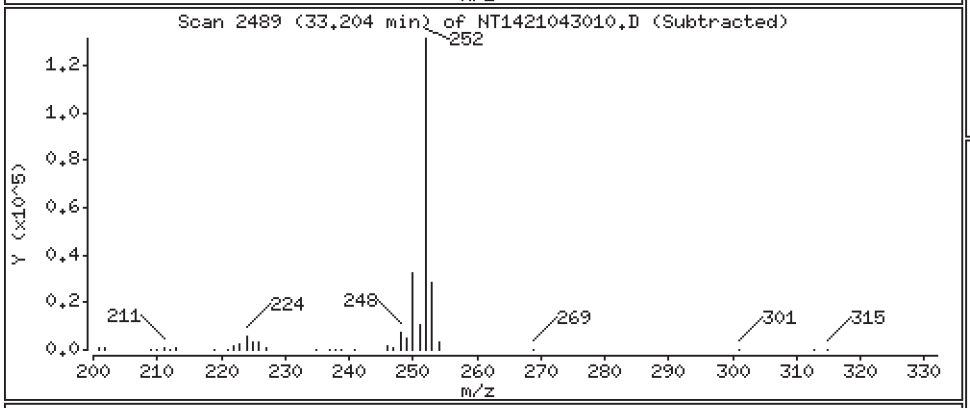
Column diameter: 0.25

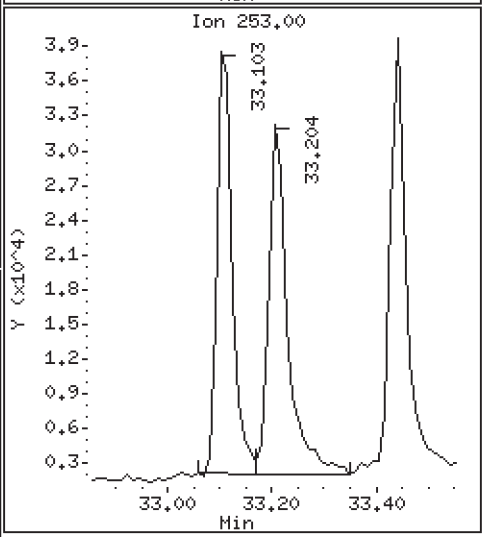
66 Benzo(a)pyrene

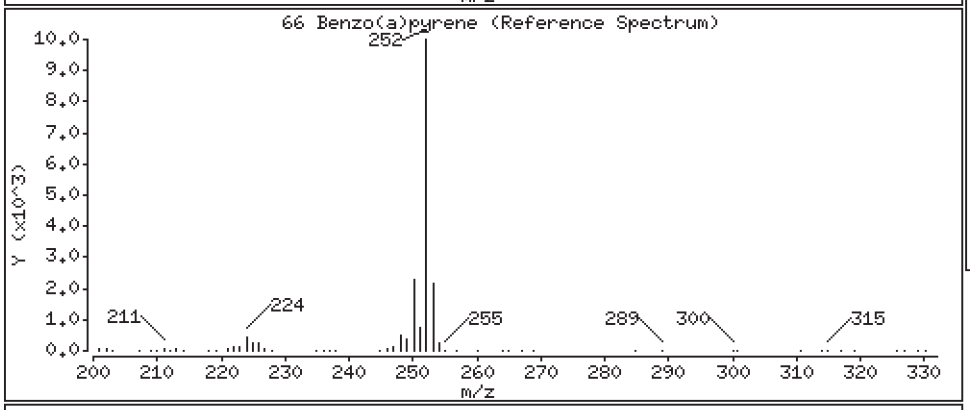
Concentration: 2.211 ug/mL

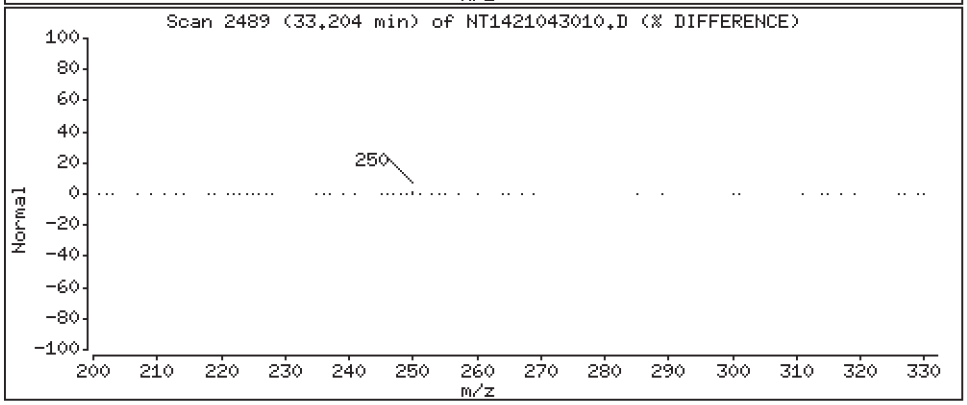












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

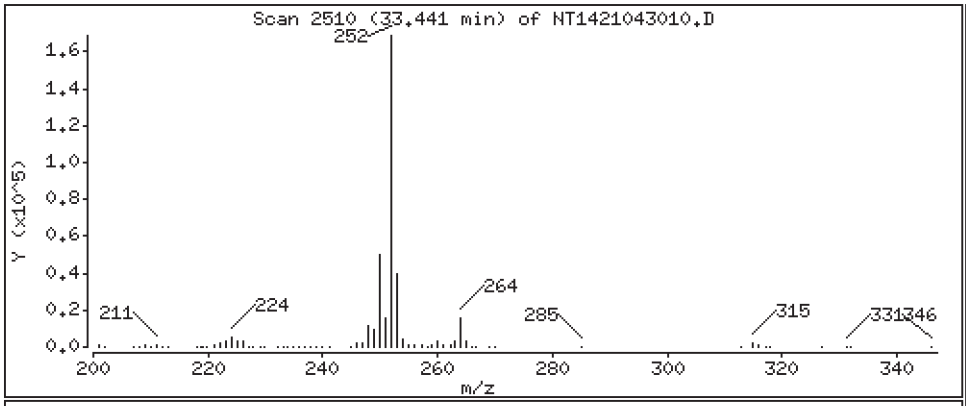
Operator: VTS

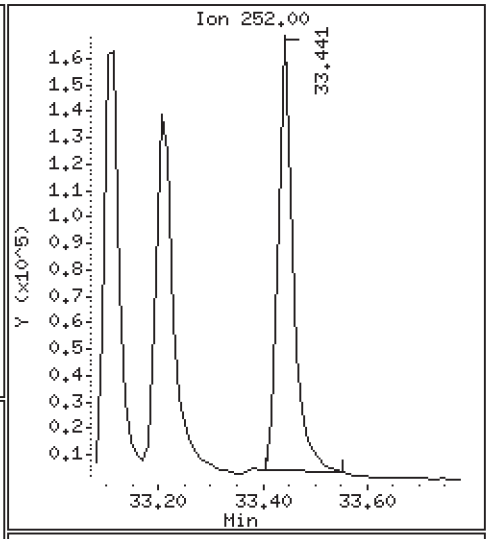
Column phase: Rxi-17Sil MS

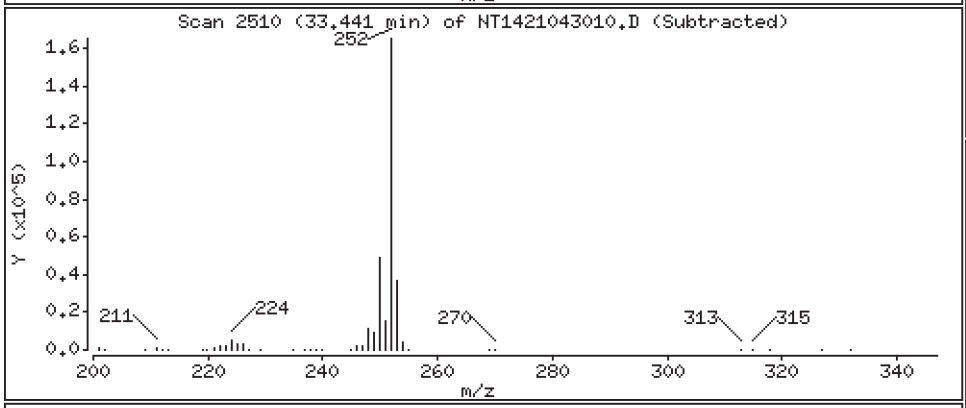
Column diameter: 0.25

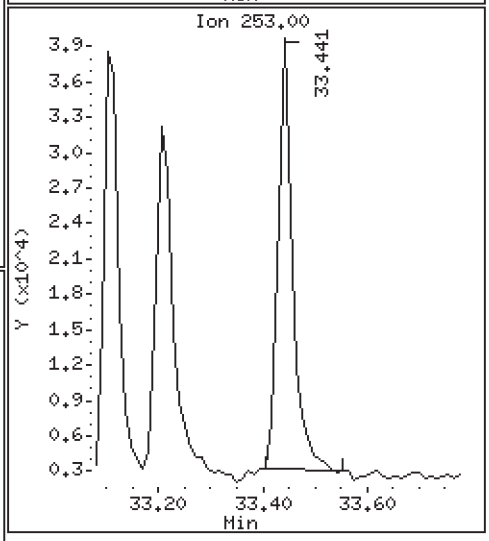
68 Perylene

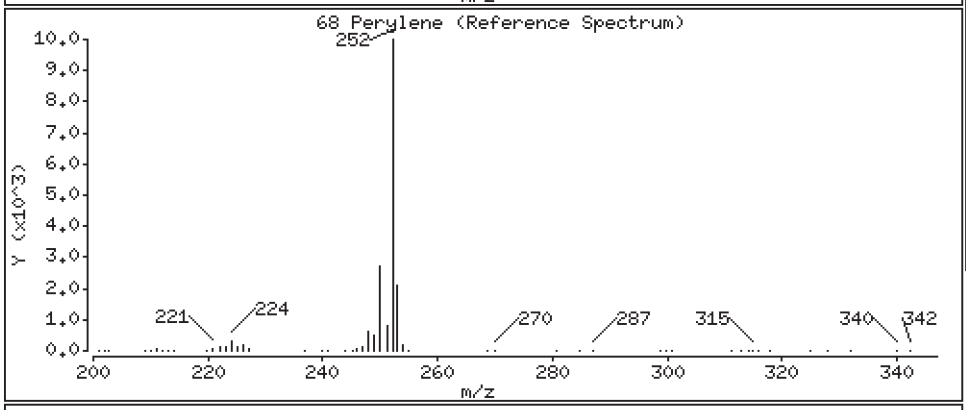
Concentration: 2.415 ug/mL

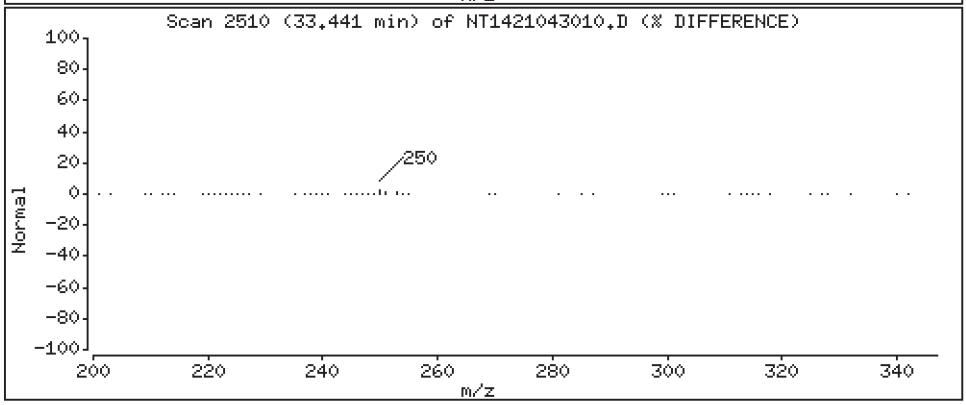












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

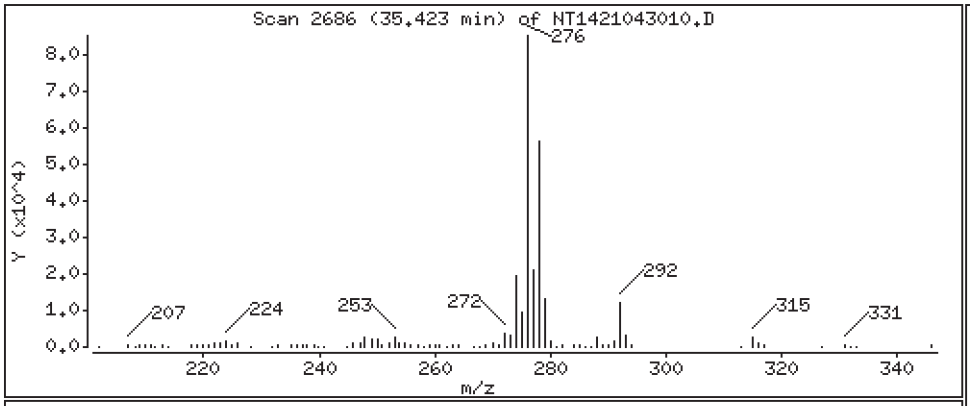
Operator: VTS

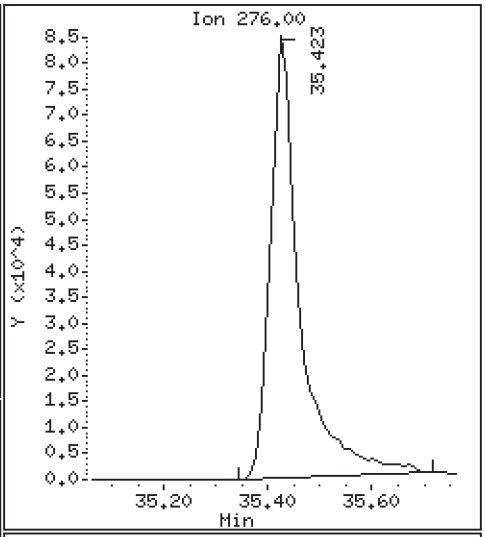
Column phase: Rxi-17Sil MS

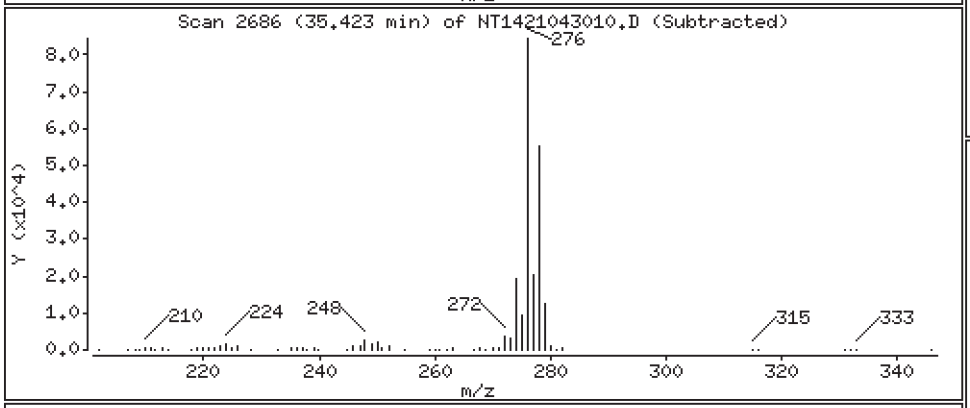
Column diameter: 0.25

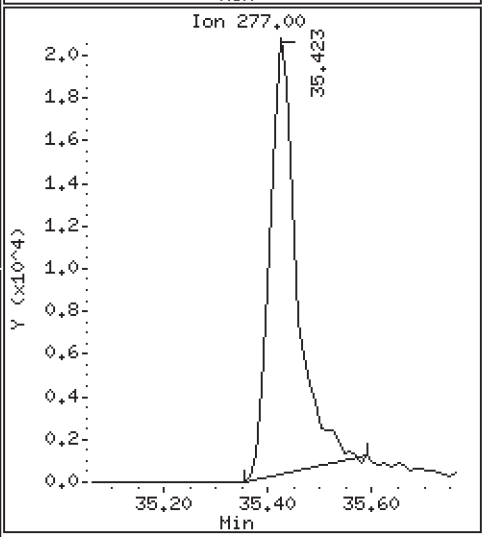
69 Indeno(1,2,3-cd)pyrene

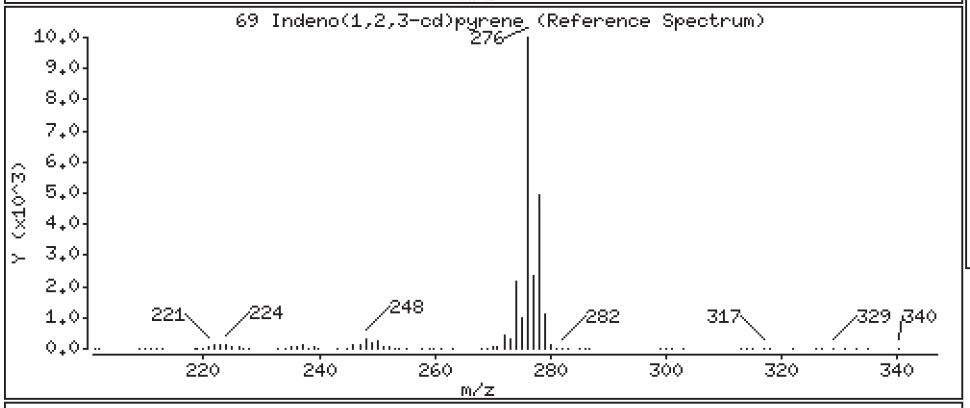
Concentration: 2.236 ug/mL

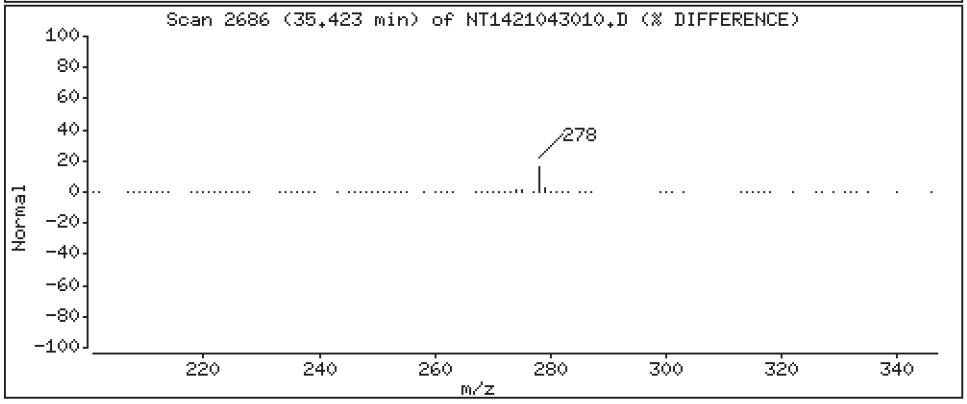












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

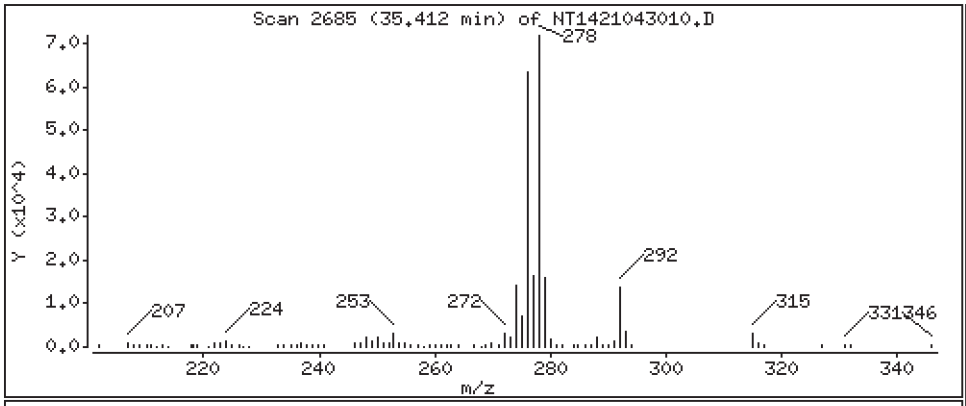
Operator: VTS

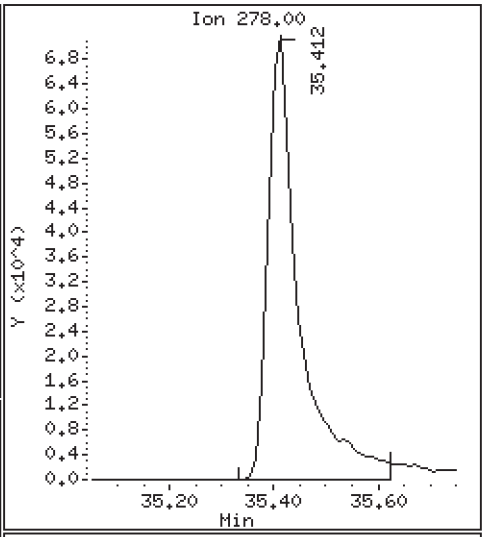
Column phase: Rxi-17Sil MS

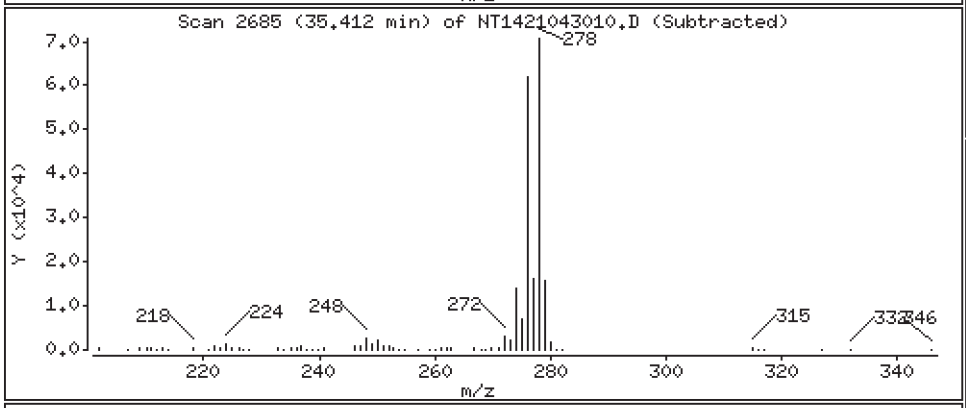
Column diameter: 0.25

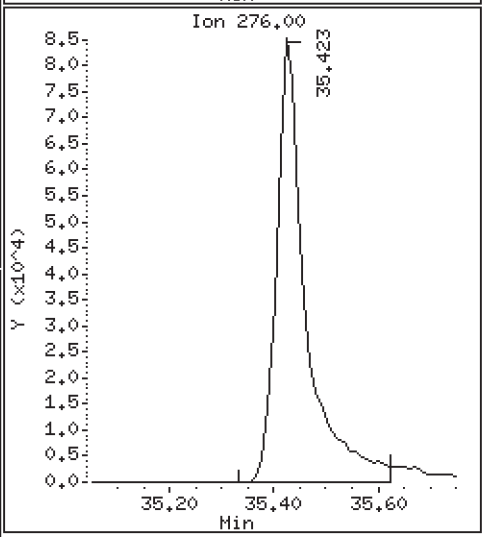
70 Dibenzo(a,h)anthracene

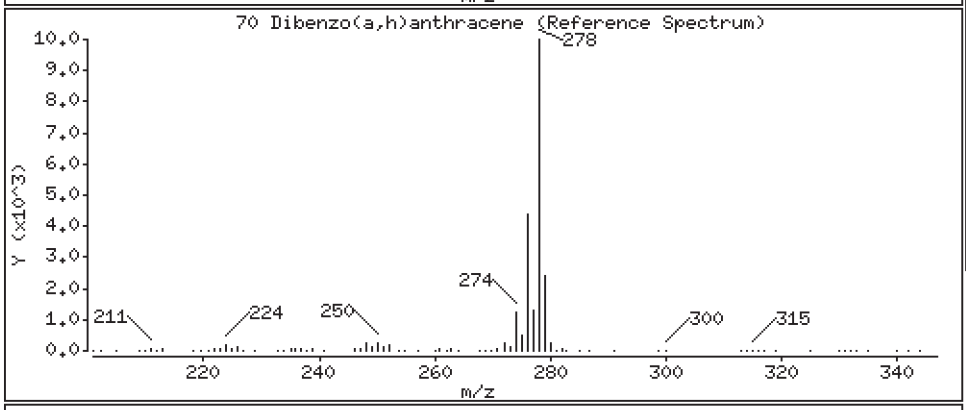
Concentration: 2.291 ug/mL

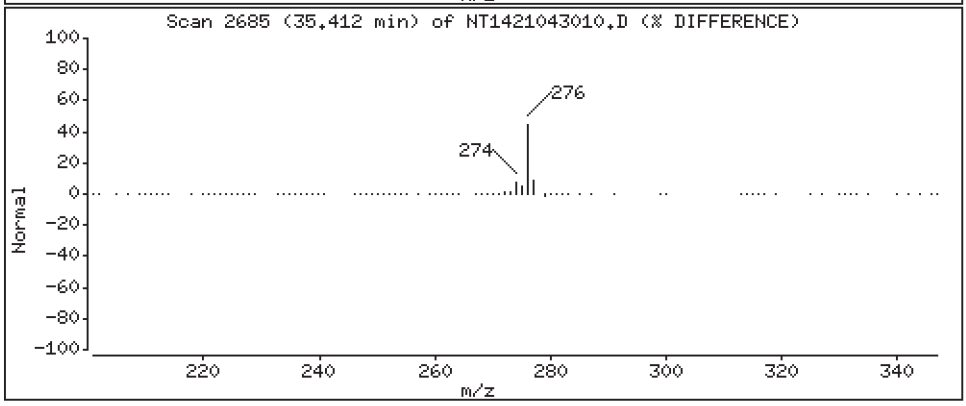












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

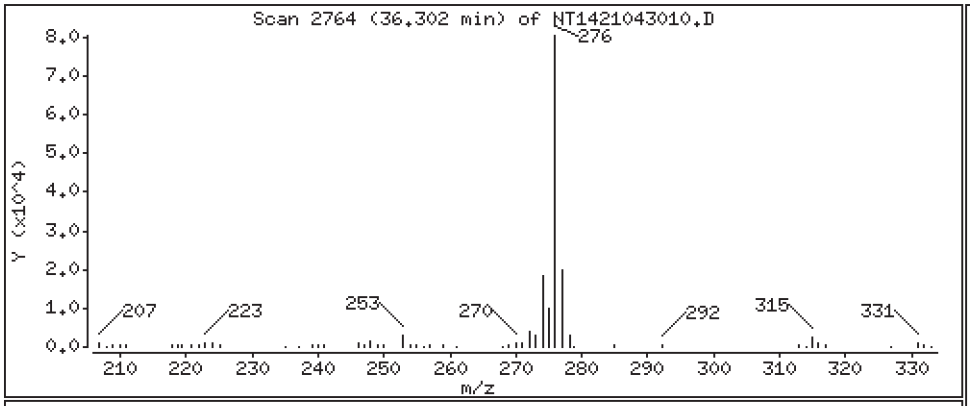
Operator: VTS

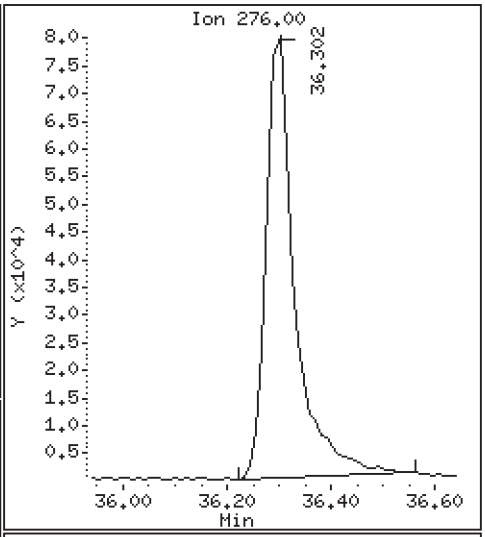
Column phase: Rxi-17Sil MS

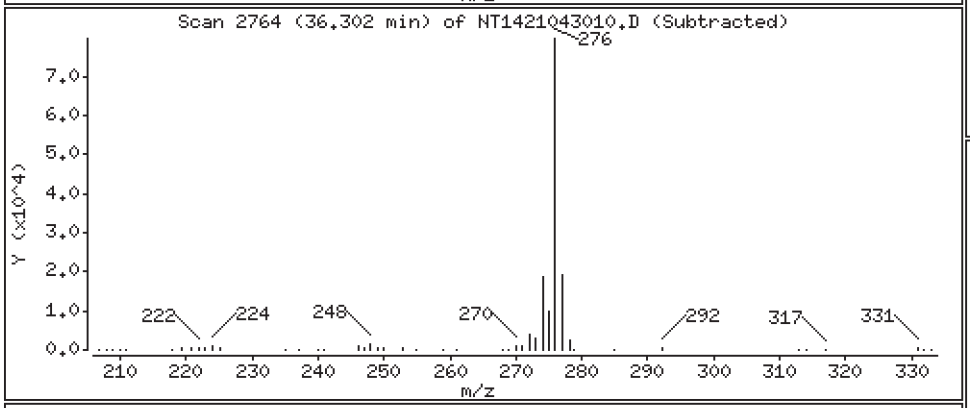
Column diameter: 0.25

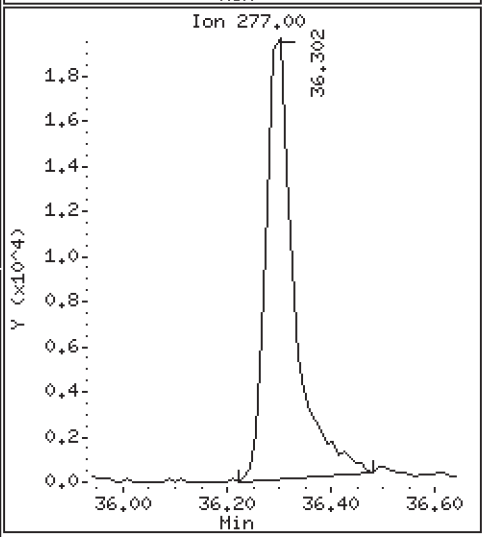
74 Benzo(g,h,i)perylene

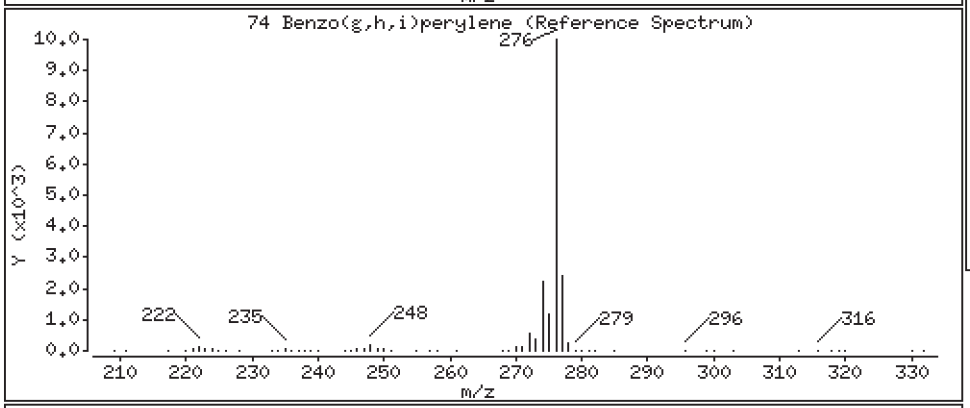
Concentration: 2.352 ug/mL

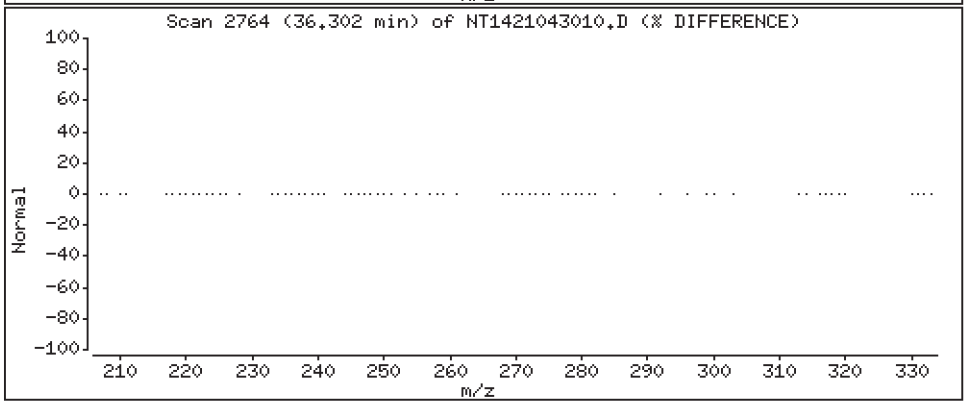












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	74342	2.84314	2.843
	2 cis-Decalin	138	8.155	8.165	(0.434)	52523	2.90966	2.910
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	604964	2.98636	2.986(R)
	7 Naphthalene	128	11.836	11.846	(0.630)	573337	2.78250	2.783
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	456850	2.78683	2.787
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	312811	2.84483	2.845
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	293934	2.82127	2.821
	18 Biphenyl	154	15.317	15.317	(0.815)	435061	2.76462	2.765
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	305582	2.82199	2.822
	20 Acenaphthylene	152	16.955	16.955	(0.903)	492364	2.88930	2.889
$	21 Acenaphthene-d10	164	17.252	17.241	(0.918)	298420	3.01695	3.017(R)
	22 Acenaphthene	153	17.362	17.361	(0.924)	329675	3.01019	3.010
	23 Dibenzofuran	168	17.735	17.735	(0.944)	459290	2.76760	2.768
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	277803	2.92320	2.923
*	25 Fluorene-d10	176	18.783	18.781	(1.000)	351020	2.00000	
	26 Fluorene	166	18.885	18.883	(1.005)	342973	2.84375	2.844
	30 Dibenzothiophene	184	21.796	21.794	(1.160)	423593	2.78230	2.782
$	35 Phenanthrene-d10	188	22.104	22.102	(0.995)	446008	2.66948	2.669(R)
	36 Phenanthrene	178	22.192	22.190	(0.999)	460265	2.46754	2.468
*	250 Anthracene-d10	188	22.225	22.223	(1.000)	309177	2.00000	
	37 Anthracene	178	22.291	22.289	(1.003)	428535	2.49230	2.492
	42 Carbazole	167	23.566	23.565	(1.060)	338612	2.34287	2.343
	43 1-Methylphenanthrene	192	24.017	24.015	(1.081)	293776	2.59400	2.594
	44 Fluoranthene	202	25.996	25.994	(1.170)	436345	2.63403	2.634
	46 Pyrene	202	26.843	26.841	(1.208)	433716	2.52654	2.527
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.964	(0.907)	342259	2.27793	2.278
$	56 Chrysene-d12	240	30.095	30.087	(0.911)	337659	2.82827	2.828(RM)
	57 Chrysene	228	30.163	30.166	(0.913)	394981	2.57401	2.574
	62 Benzo(b)fluoranthene	252	32.393	32.386	(0.980)	324344	2.32564	2.326
	63 Benzo(k)fluoranthene	252	32.438	32.430	(0.982)	391530	2.30379	2.304(M)
	293 Benzo(j)fluoranthene	252	32.494	32.498	(0.983)	393189	2.51567	2.516(M)
	246 Total Benzofluoranthenes	252	32.494	32.497	(0.983)	1066161	6.96004	6.960(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505(RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415(M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 14:41

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

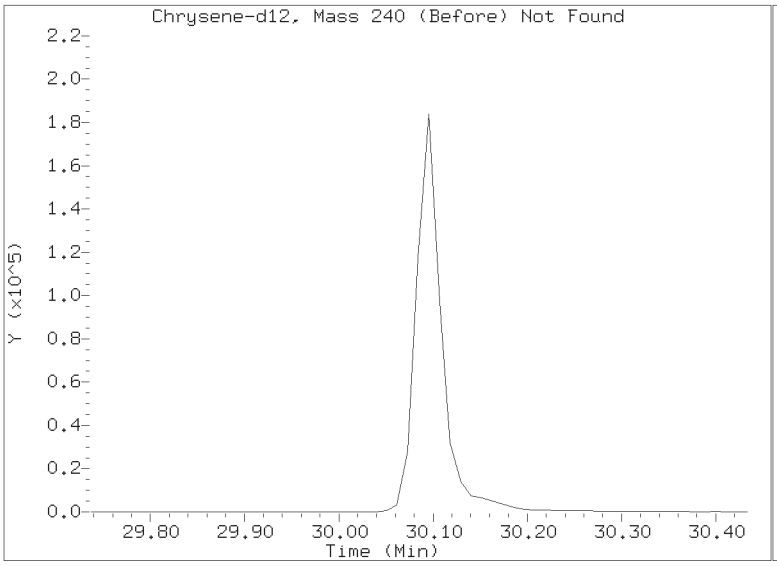
RRT check based on Ccal File: NT1421043009.D

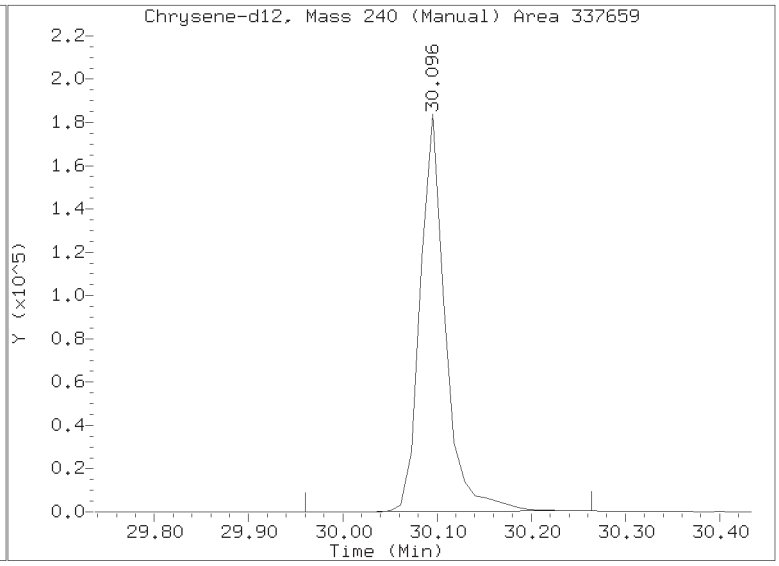
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

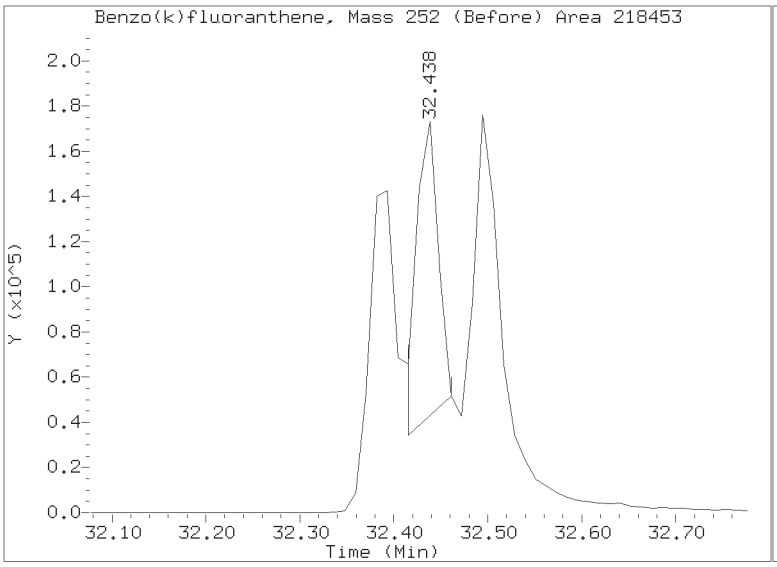
* Only compounds listed in the work order have been verified by the analyst *

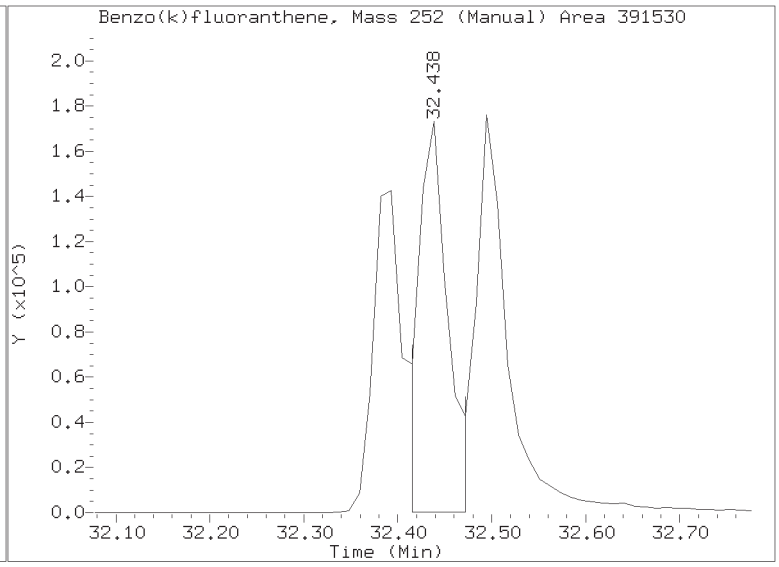
Quant Ion Manual Peak Adjustment Report

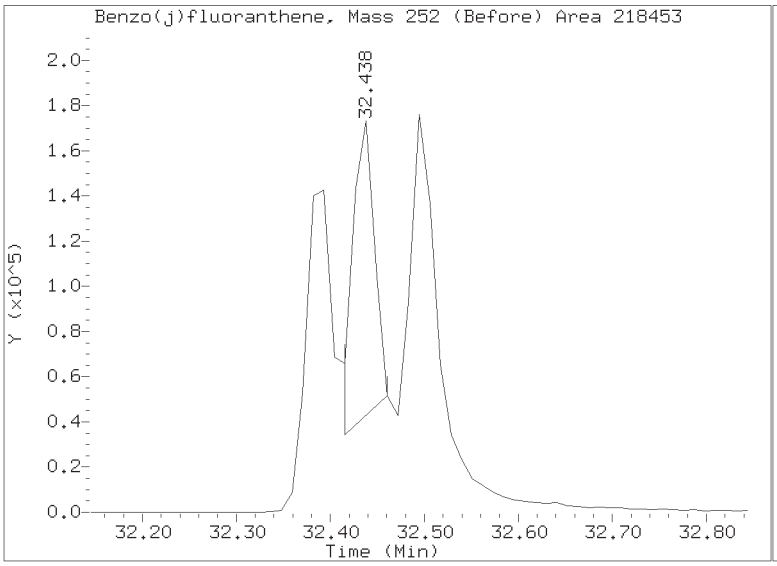
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

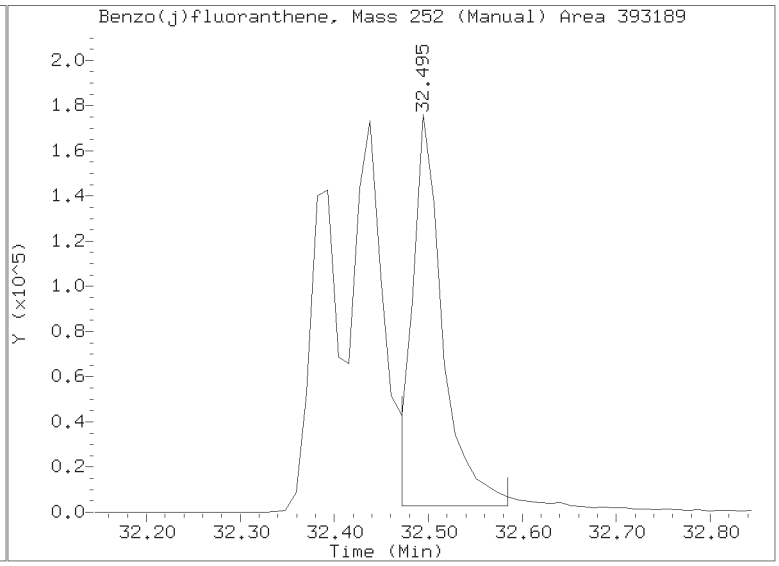












Quant Ion Manual Peak Adjustment Report

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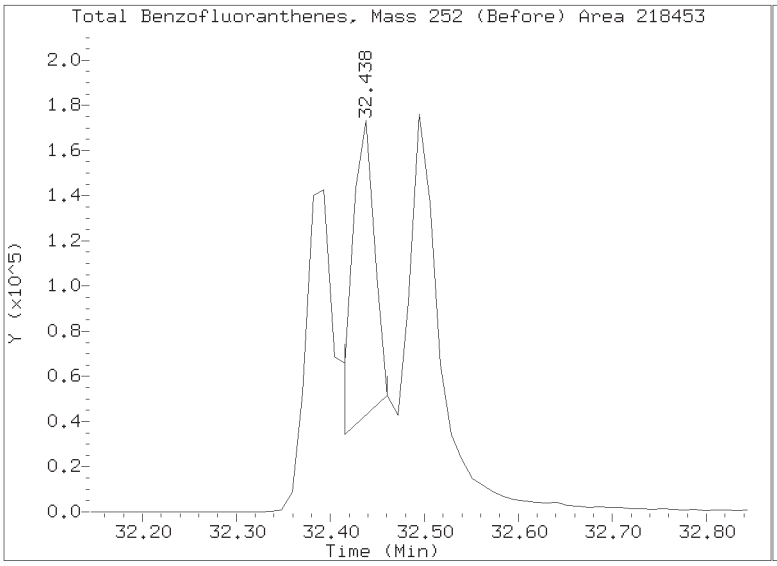
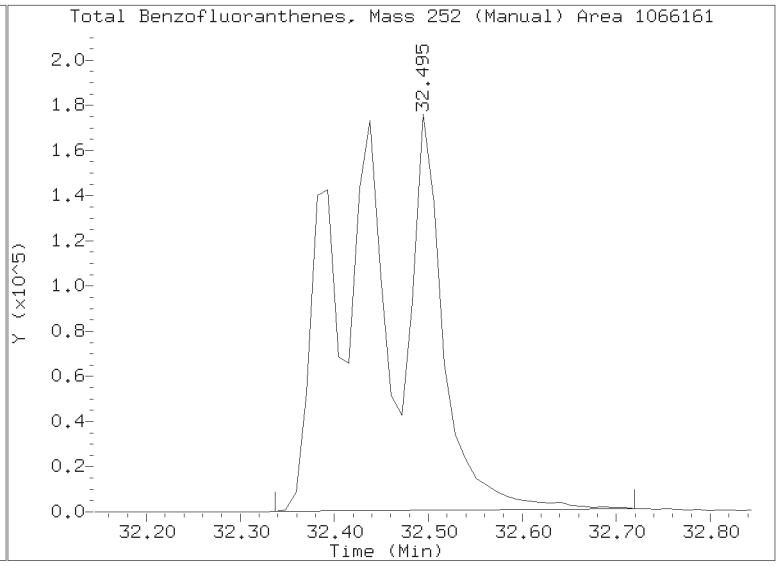
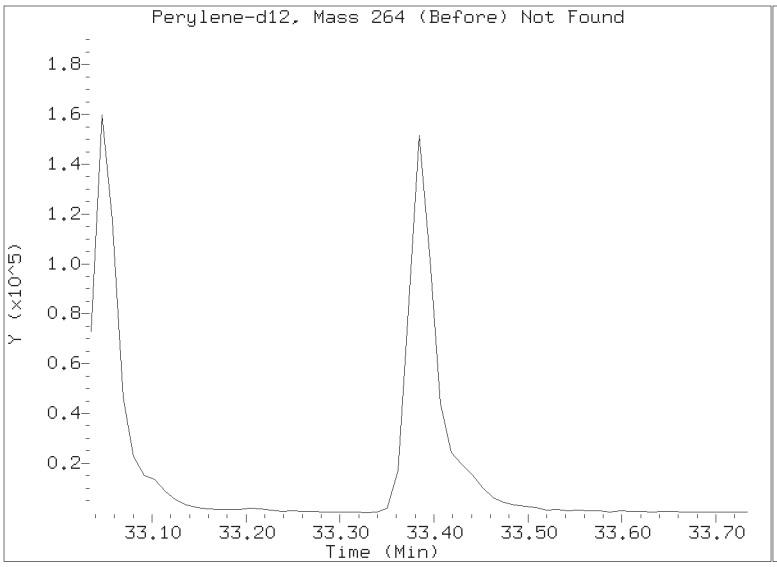
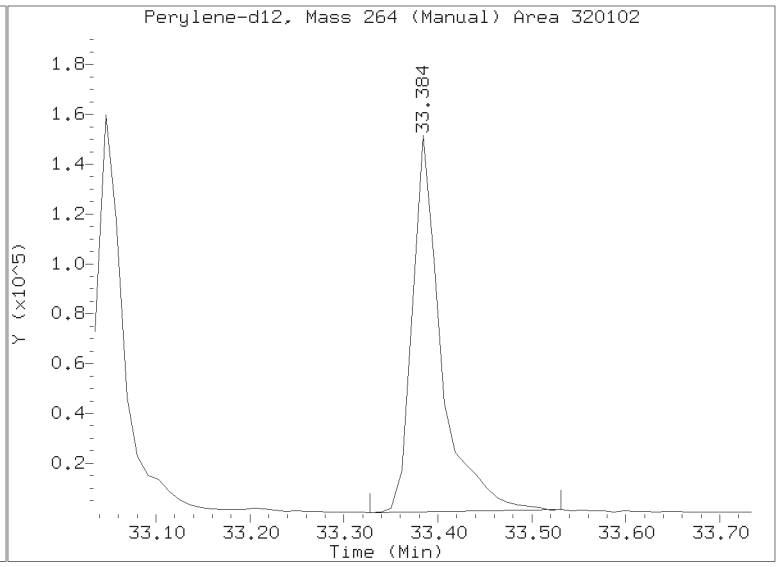
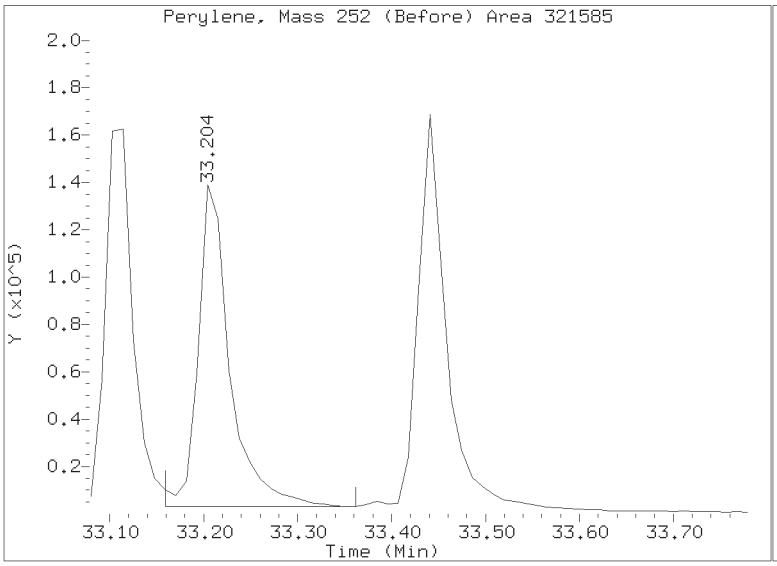
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

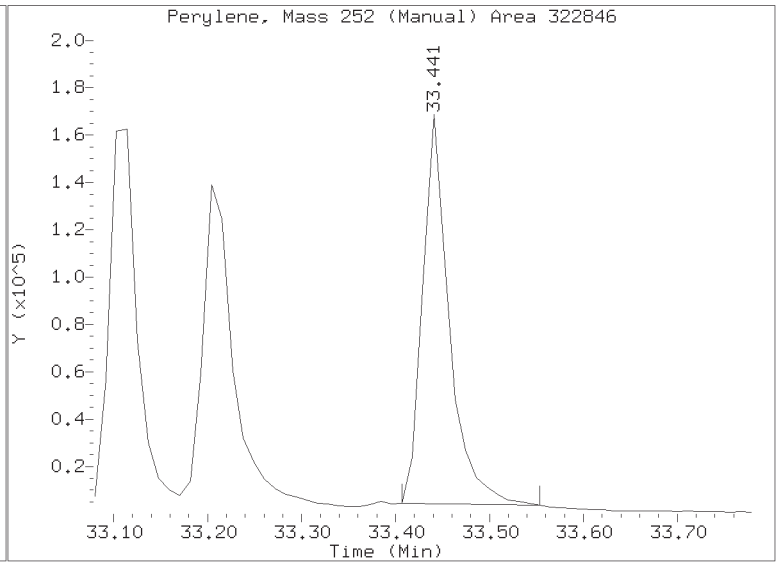






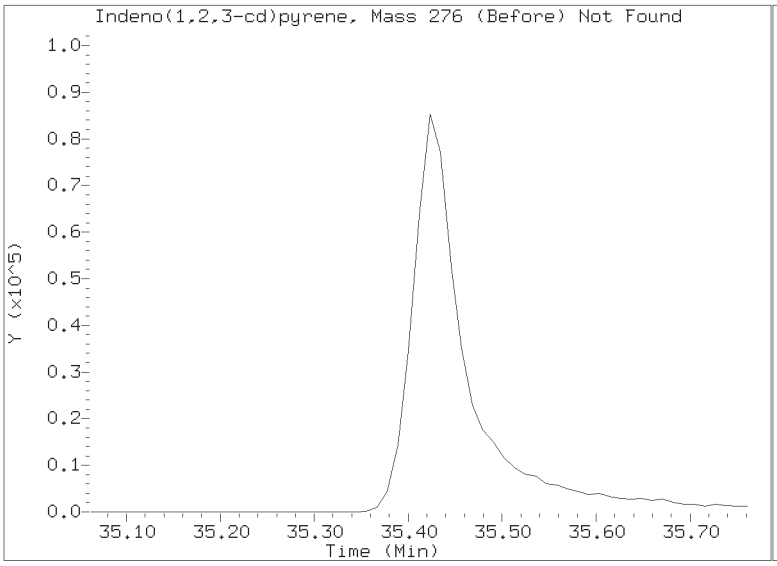


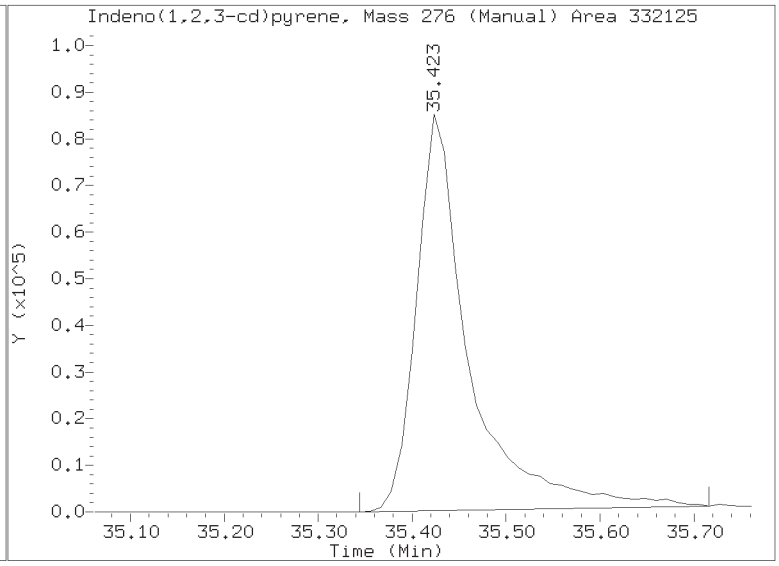


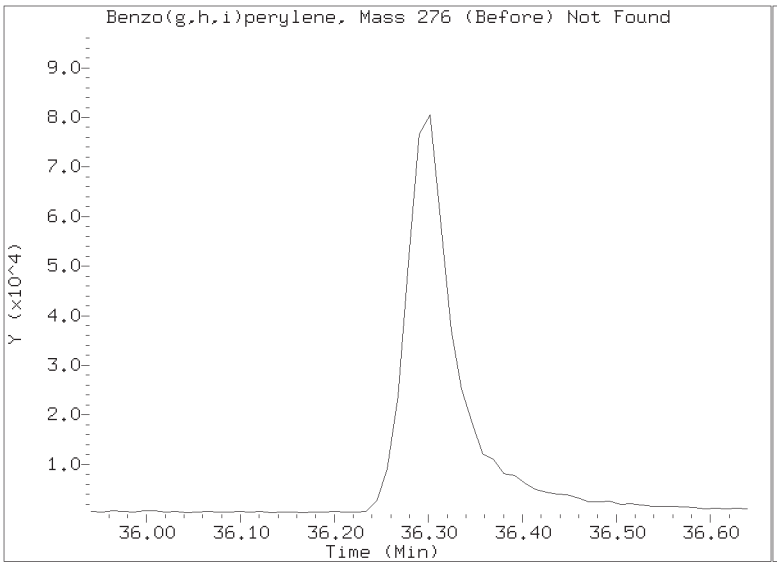


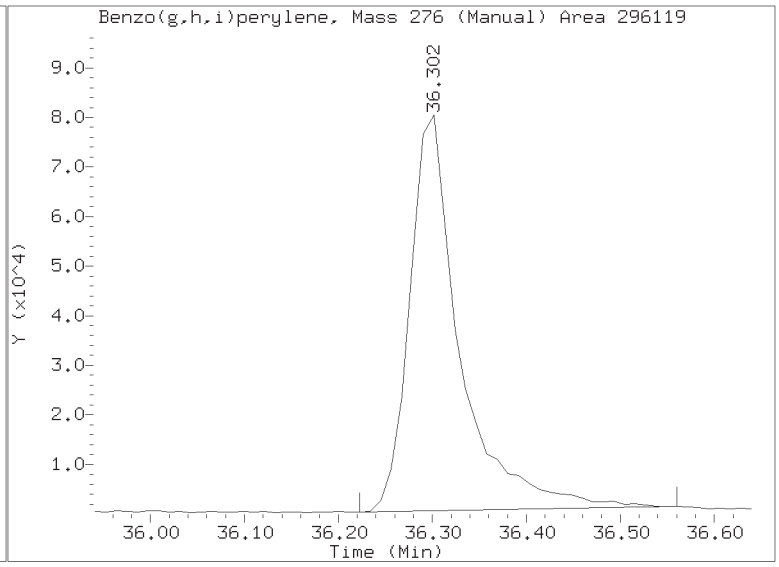
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18









ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043011.D
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Inj Date : 30-APR-2021 15:29
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-ICB1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	649759	2.99218	2.992(R)
	7 Naphthalene	128	Compound Not Detected.					
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	Compound Not Detected.					
	17 1-methylnaphthalene	141	Compound Not Detected.					
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	320325	3.02102	3.021(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	Compound Not Detected.					
*	25 Fluorene-d10	176	18.772	18.781	(1.000)	376278	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.104	22.102	(0.995)	487636	2.80182	2.802(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.225	22.223	(1.000)	322067	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	Compound Not Detected.					
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.095	30.087	(0.911)	346182	2.89788	2.898(RM)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328767	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	33.384	33.388	(1.010)	291635	2.28628	2.286(RM)
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043011.D
Lab Smp Id: SJD0305-ICB1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	376278	-10.51
250 Anthracene-d10	381033	190517	762066	322067	-15.48
251 Benzo(e)pyrene-d1	370998	185499	741996	328767	-11.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.77	-0.05
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043011.D

Lab ID: SJD0305-ICB1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 15:29

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

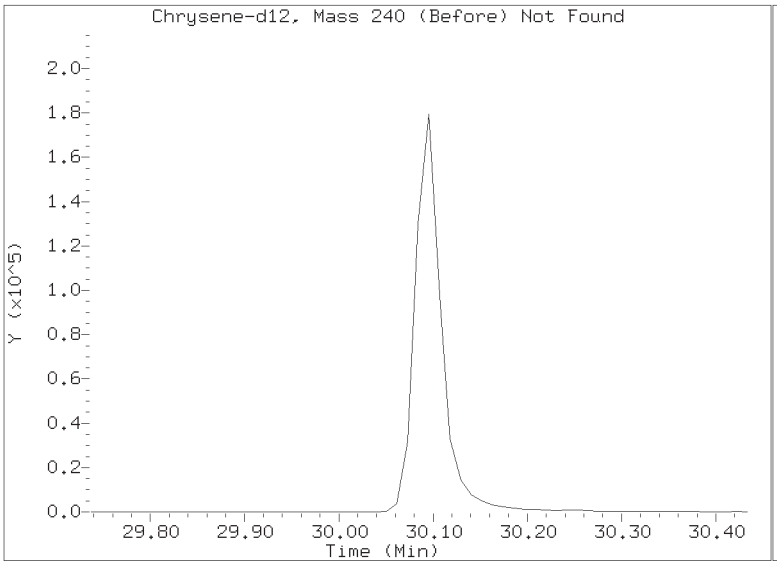
RRT check based on Ccal File: NT1421043009.D

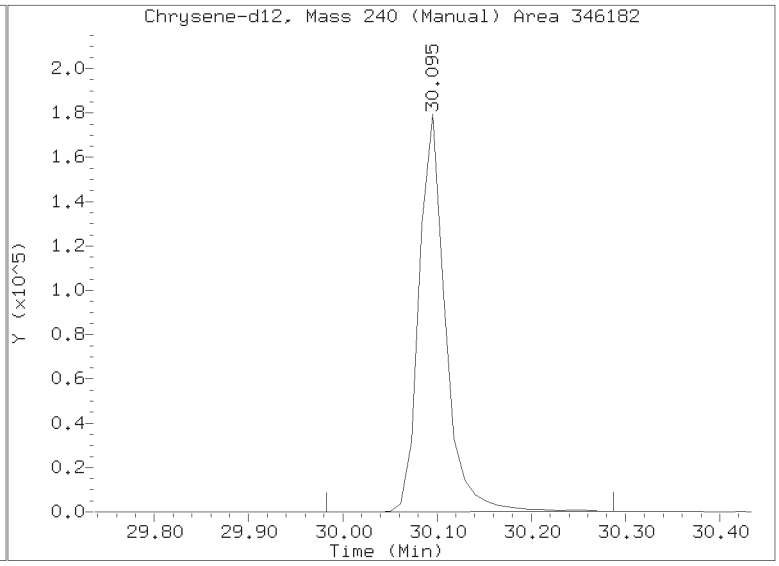
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

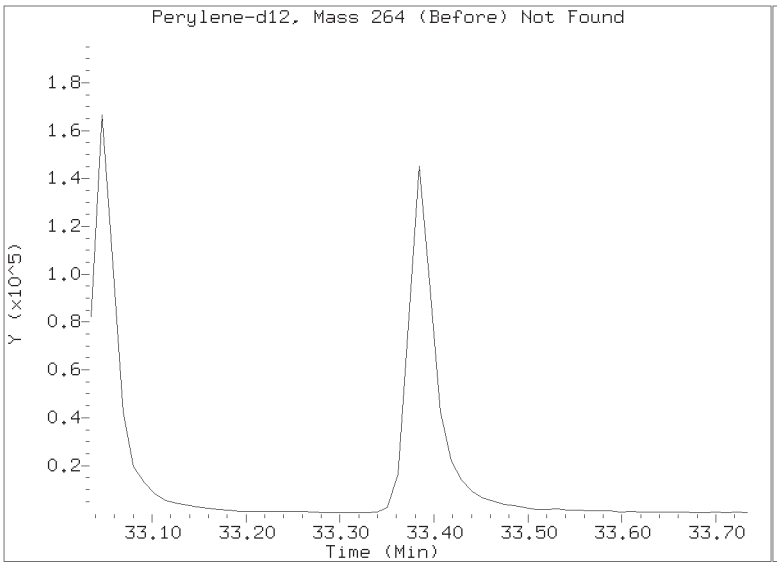
* Only compounds listed in the work order have been verified by the analyst *

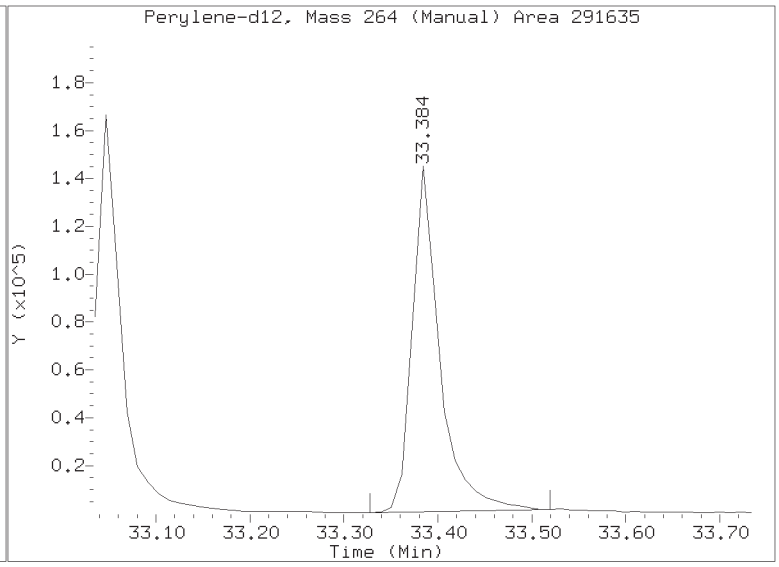
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043011.D
Injection Date: 30-APR-2021 15:29
Lab ID:SJD0305-ICB1 Client ID:
Report Date: 05/01/2021 09:18









INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00019	Instrument:	NT14
Calibration Date:	05/07/2021	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RRF		RRF		RRF		RRF		RRF		RRF
Fluorene-d10	2	307900										
Anthracene-d10	2	281692										
Benzo(e)pyrene-d12	2	303335.5										

INITIAL CALIBRATION DATA

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Calibration:	EE00019	Instrument:	NT14
Calibration Date:	05/07/2021	Column (1):	ZB-5MS

COMPOUND	Mean RRF	RRF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Fluorene-d10		0.0			RSD (15)	
Anthracene-d10		0.0			RSD (15)	
Benzo(e)pyrene-d12		0.0			RSD (15)	

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21D0182
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: EE00001
Laboratory ID: SJD0305-SCV1
Sequence: SJD0305
Sequence Name: Secondary Cal Check
Standard ID: J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.8	13.7	20.00
cis-Decalin	2.5000	2.9	16.4	20.00
Naphthalene	2.5000	2.8	11.3	20.00
1-Methylnaphthalene	2.5000	2.8	12.9	20.00
2-Methylnaphthalene	2.5000	2.8	13.8	20.00
Biphenyl	2.5000	2.8	10.6	20.00
2,6-Dimethylnaphthalene	2.5000	2.8	12.9	20.00
Acenaphthylene	2.5000	2.9	15.6	20.00
Acenaphthene	2.5000	3.0	20.4	20.00
Dibenzofuran	2.5000	2.8	10.7	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.9	16.9	20.00
Fluorene	2.5000	2.8	13.8	20.00
Benzo(b)thiophene	2.5000	2.8	11.5	20.00
Phenanthrene	2.5000	2.5	-1.3	20.00
Anthracene	2.5000	2.5	-0.3	20.00
Carbazole	2.5000	2.3	-6.3	20.00
1-Methylphenanthrene	2.5000	2.6	3.8	20.00
Fluoranthene	2.5000	2.6	5.4	20.00
Dibenzothiophene	2.5000	2.8	11.3	20.00
Pyrene	2.5000	2.5	1.1	20.00
Benzo(a)anthracene	2.5000	2.3	-8.9	20.00
Chrysene	2.5000	2.6	3.0	20.00
Benzo(b)fluoranthene	2.5000	2.3	-7.0	
Benzo(j)fluoranthene	2.5000	2.5	0.6	
Benzo(k)fluoranthene	2.5000	2.3	-7.8	
Benzo(e)pyrene	2.5000	2.5	-1.8	20.00
Benzo(a)pyrene	2.5000	2.2	-11.6	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.2	-10.6	20.00
Dibenzo(a,h)anthracene	2.5000	2.3	-8.4	20.00
Benzo(g,h,i)perylene	2.5000	2.4	-5.9	20.00
Perylene	2.5000	2.4	-3.4	20.00
Naphthalene-d8	2.5000	2.99	19.5	20.00
Acenaphthene-d10	2.5000	3.02	20.7	20.00
Phenanthrene-d10	2.5000	2.67	6.8	20.00
Chrysene-d12	2.5000	2.83	13.1	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21D0182
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Calibration: EE00001
Laboratory ID: SJD0305-SCV1
Sequence: SJD0305
Sequence Name: Secondary Cal Check
Standard ID: J004707

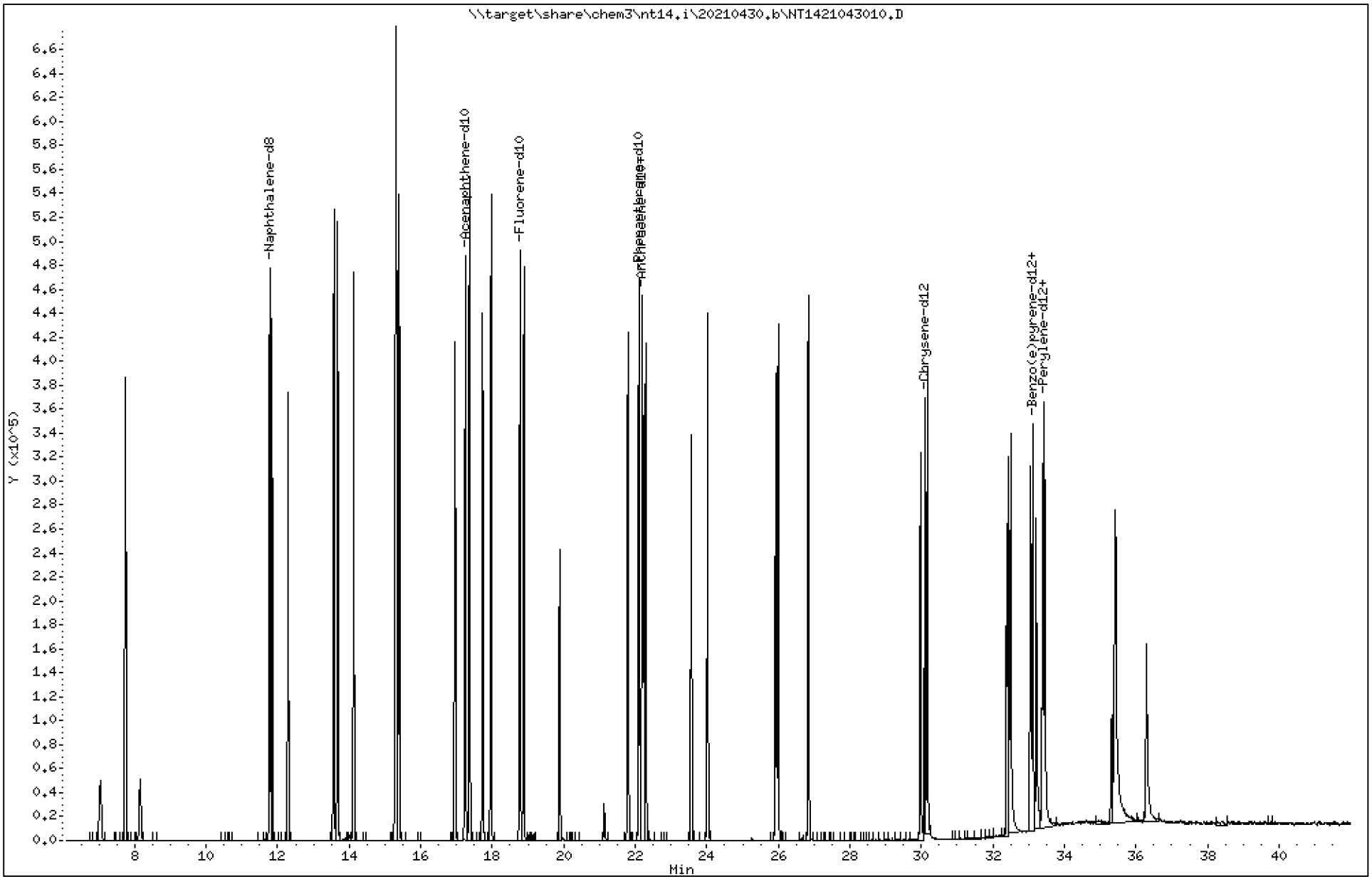
Perylene-d12	2.5000	2.51	0.2	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Date : 30-APR-2021 14:41
Client ID:
Sample Info: SJD0305-SCV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

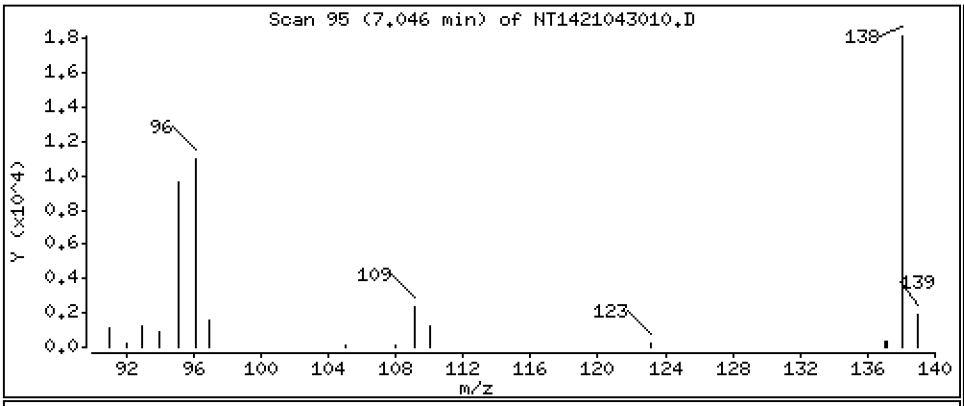
Operator: VTS

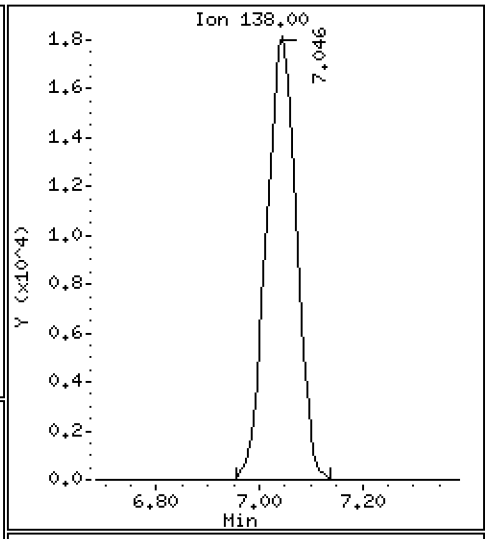
Column phase: Rxi-17Sil MS

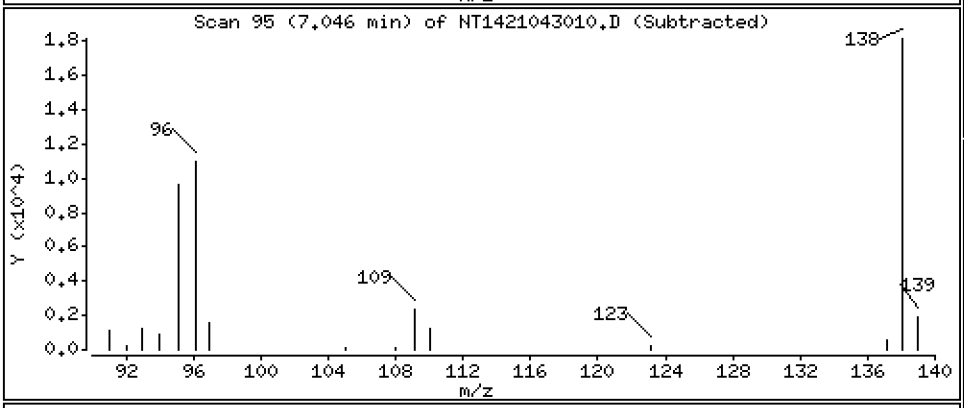
Column diameter: 0.25

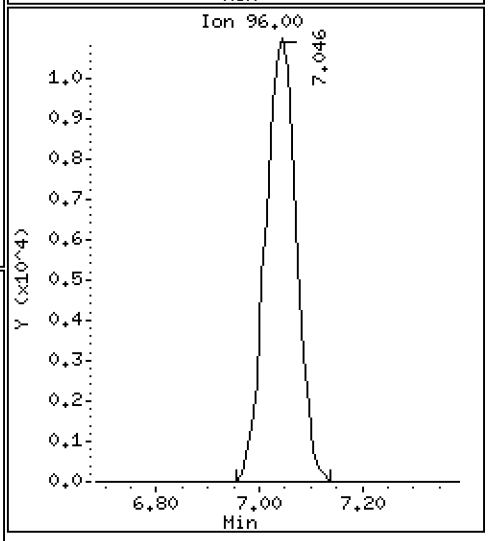
1 trans-Decalin

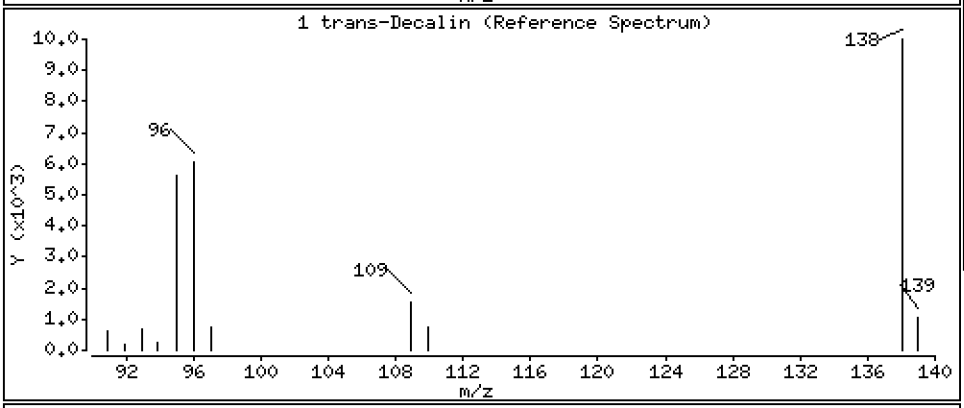
Concentration: 2.843 ug/mL

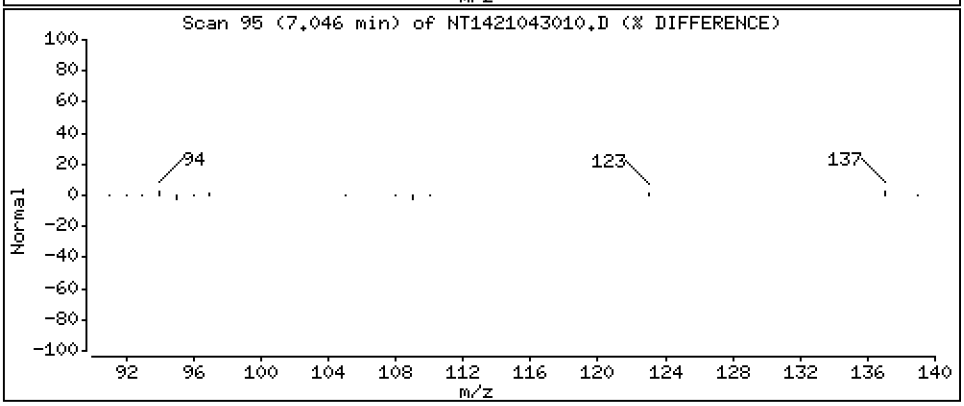












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

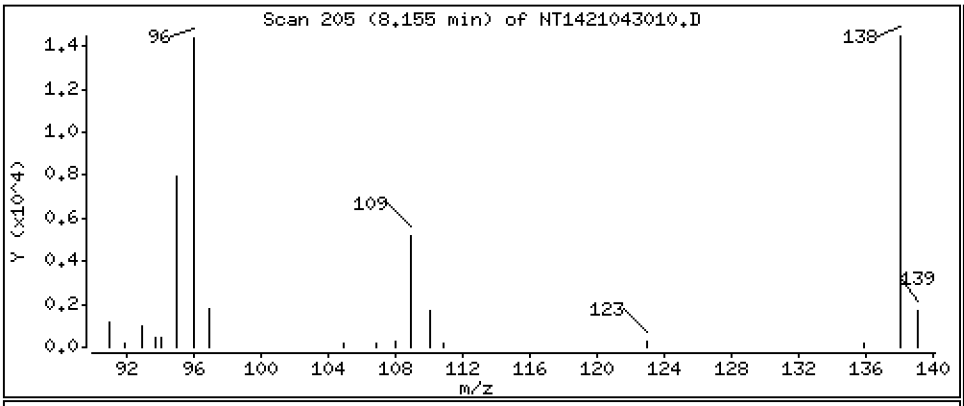
Operator: VTS

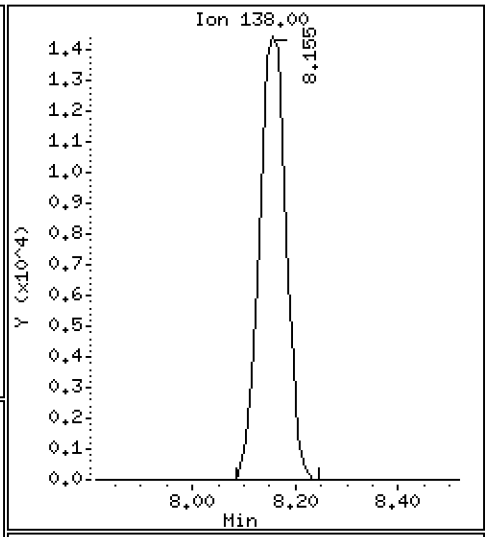
Column phase: Rxi-17Sil MS

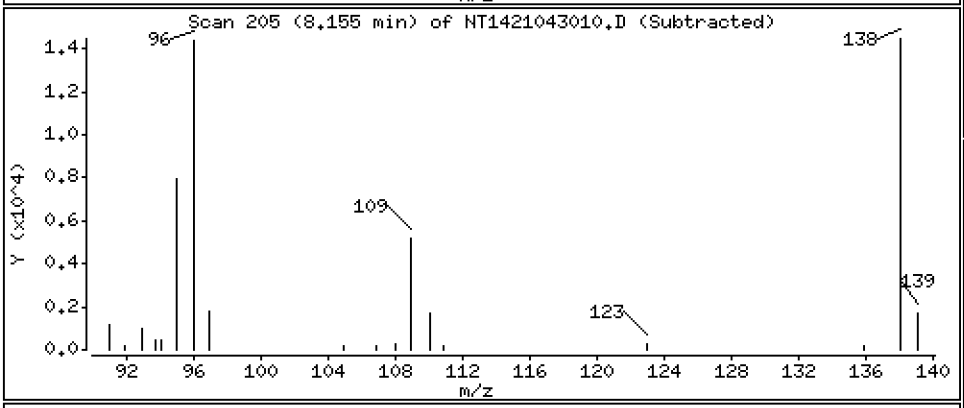
Column diameter: 0.25

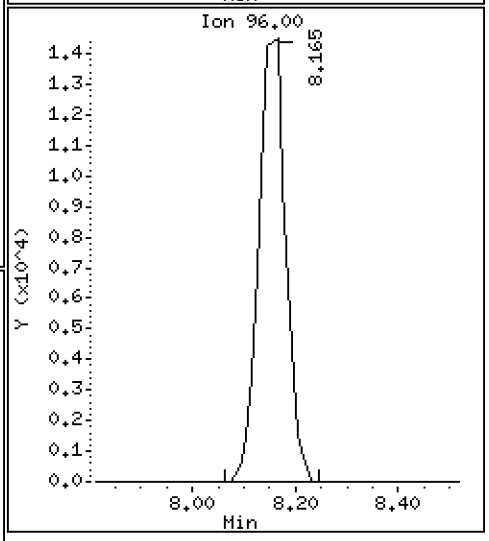
2 cis-Decalin

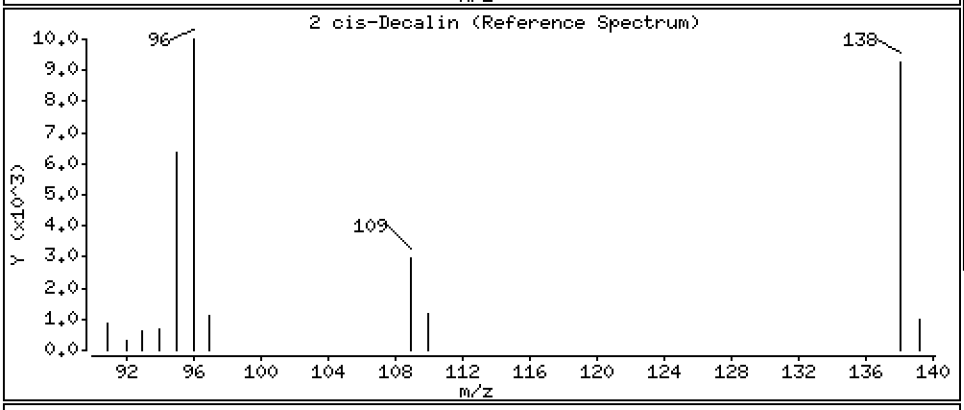
Concentration: 2.910 ug/mL

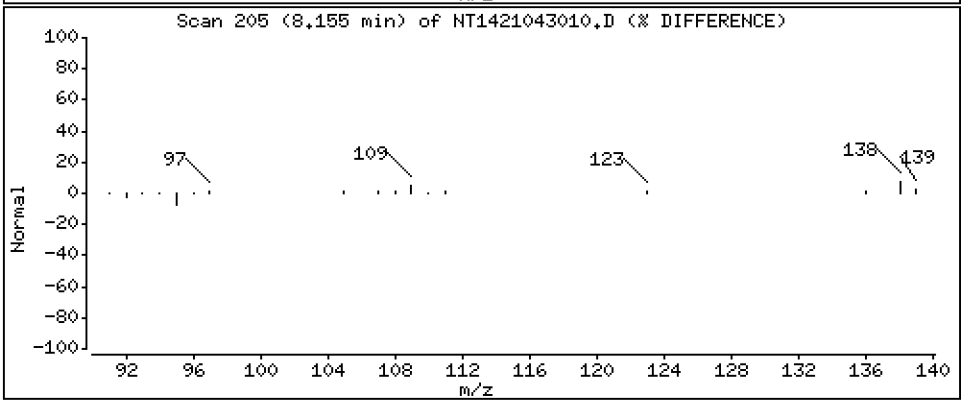












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

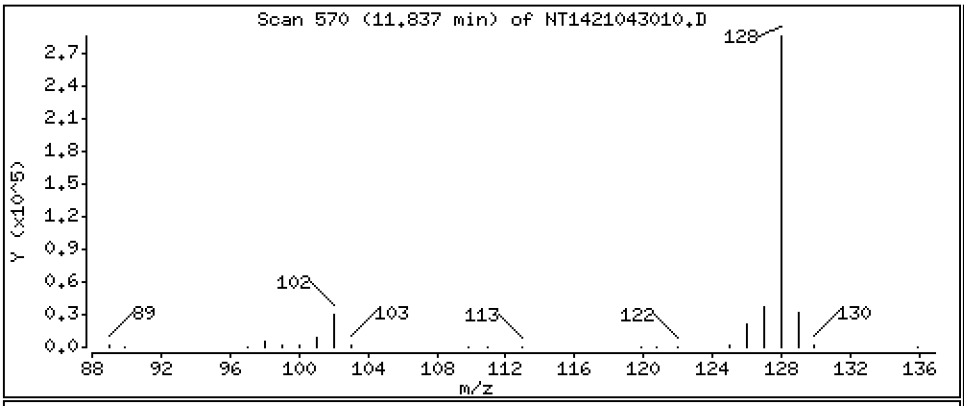
Operator: VTS

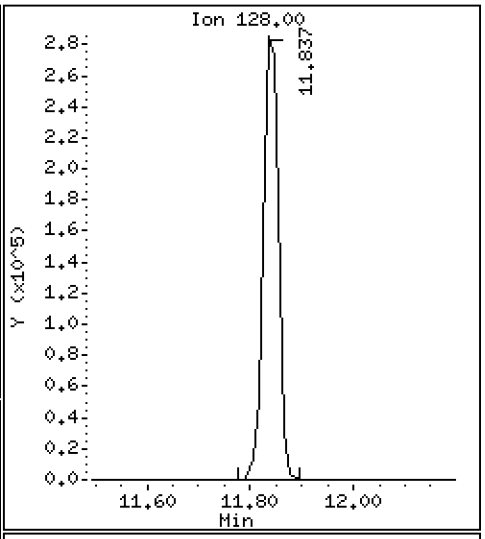
Column phase: Rxi-17Sil MS

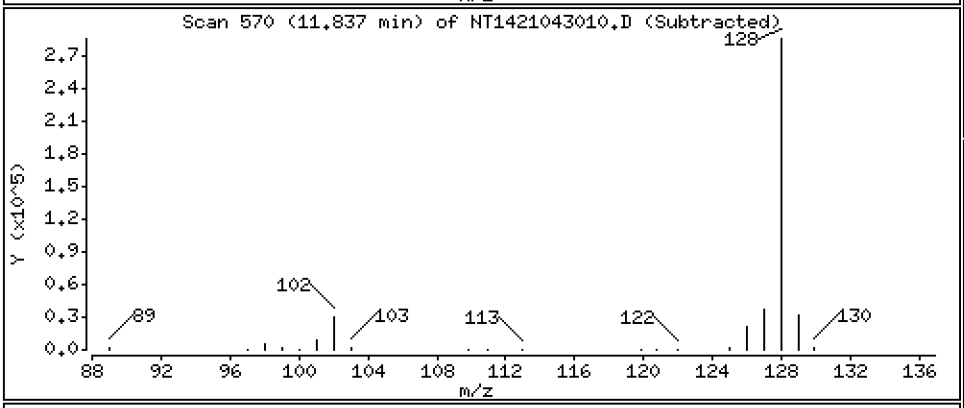
Column diameter: 0.25

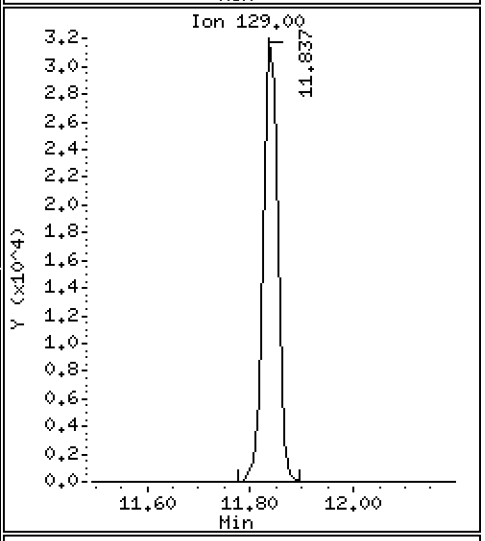
7 Naphthalene

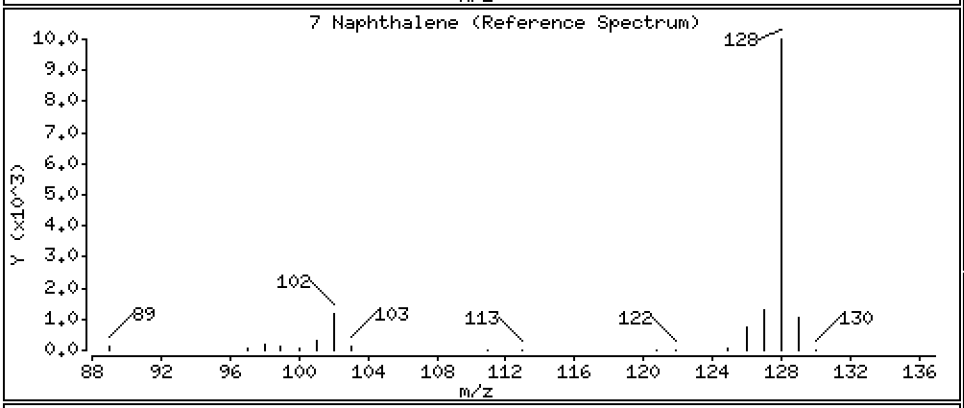
Concentration: 2.783 ug/mL

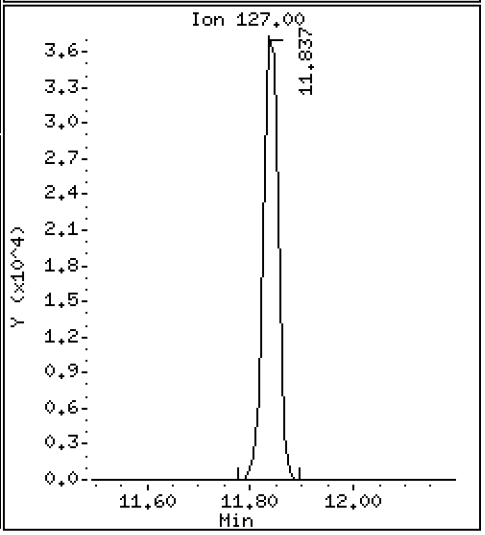


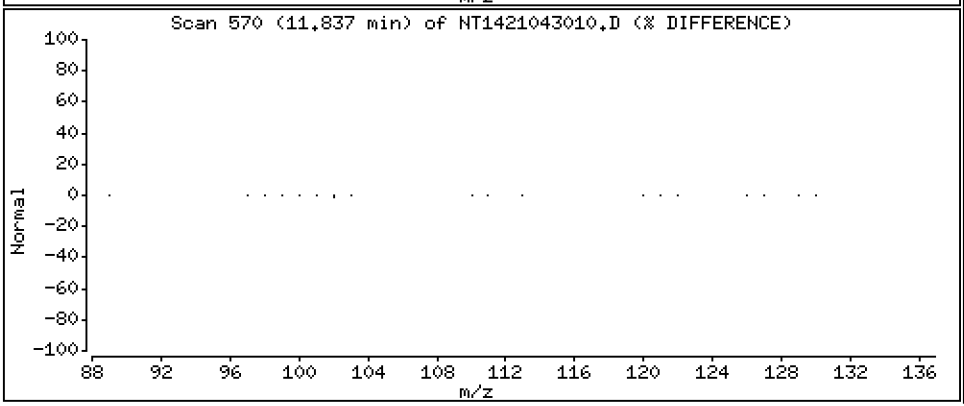












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

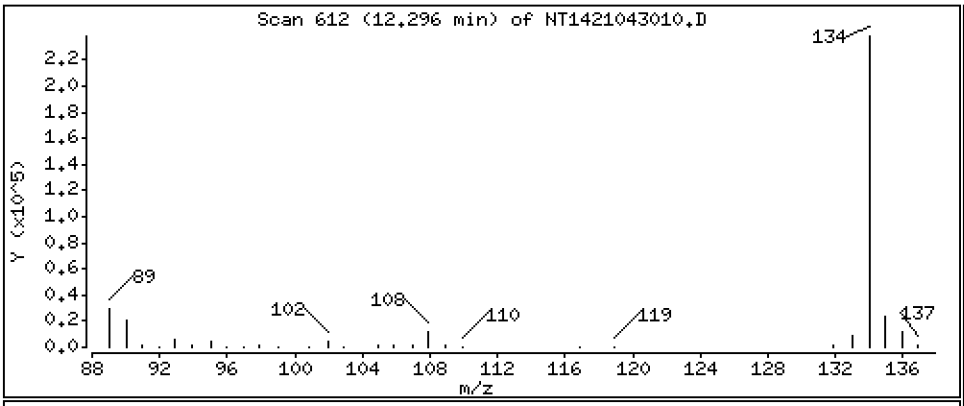
Operator: VTS

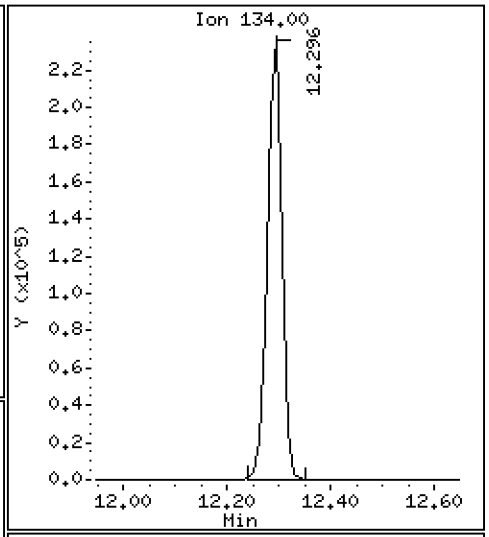
Column phase: Rxi-17Sil MS

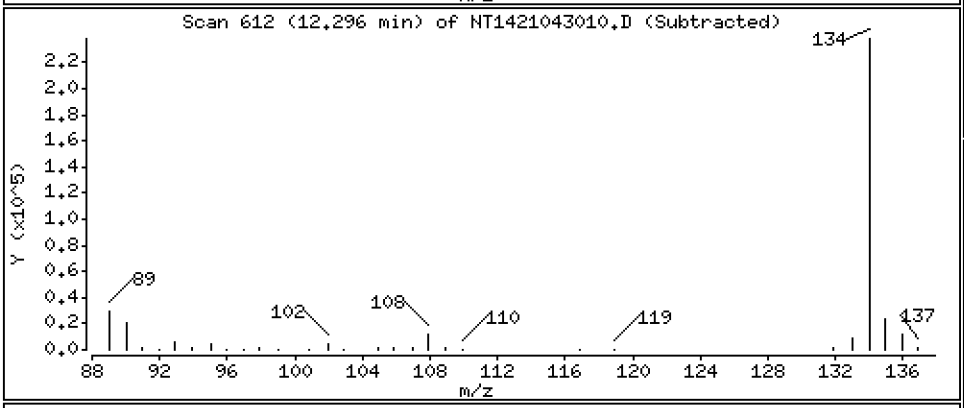
Column diameter: 0.25

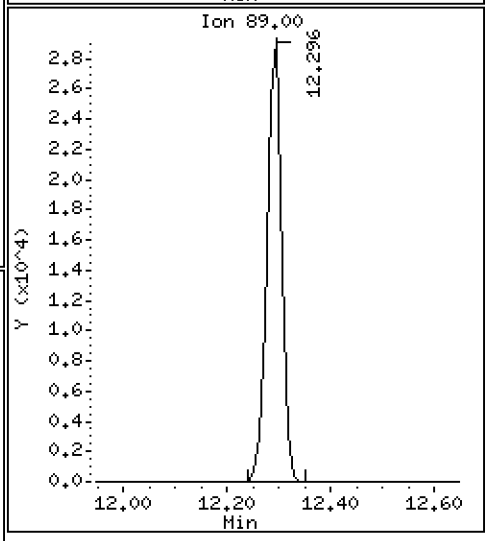
12 Benzo(b)thiophene

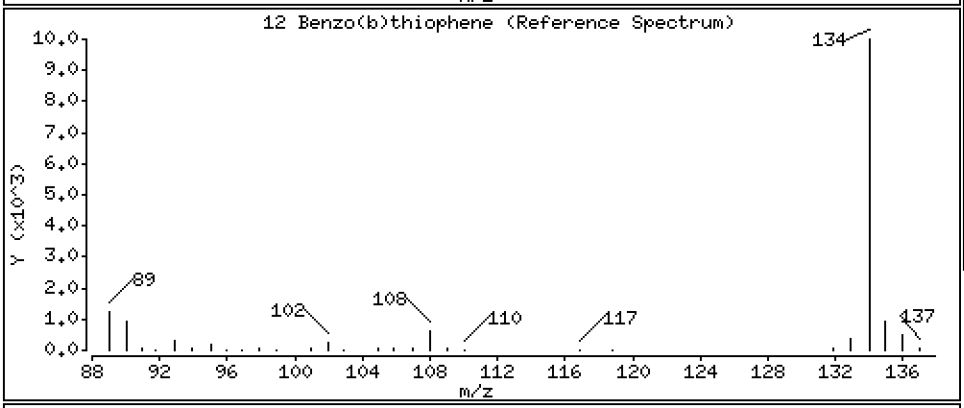
Concentration: 2.787 ug/mL

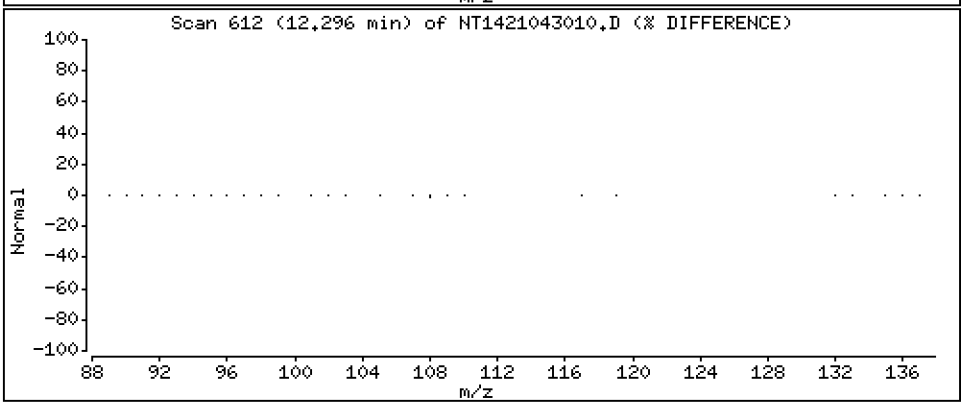












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

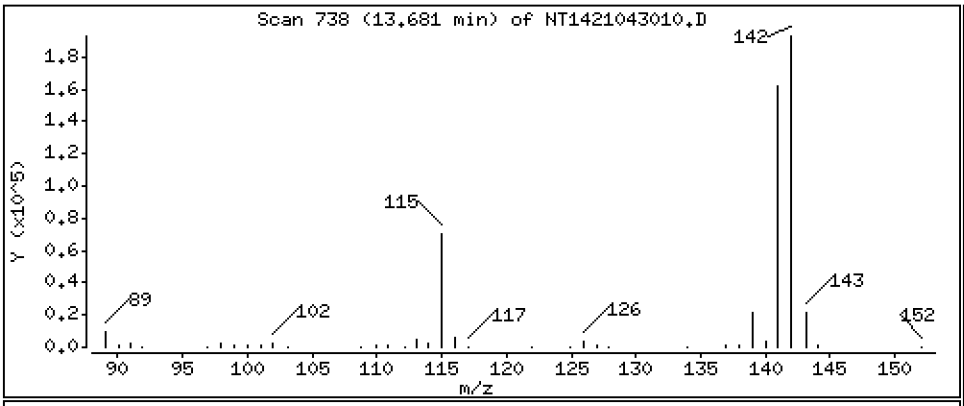
Operator: VTS

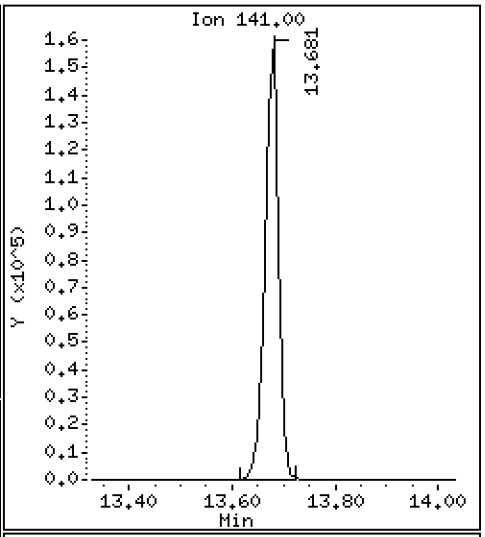
Column phase: Rxi-17Sil MS

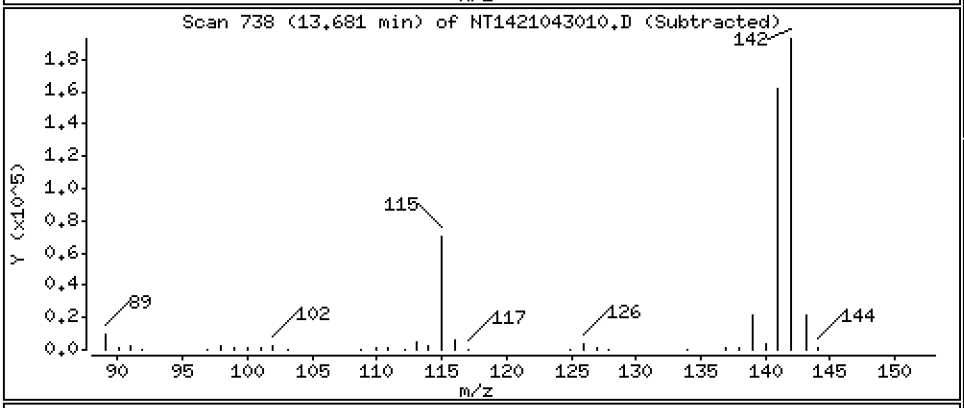
Column diameter: 0.25

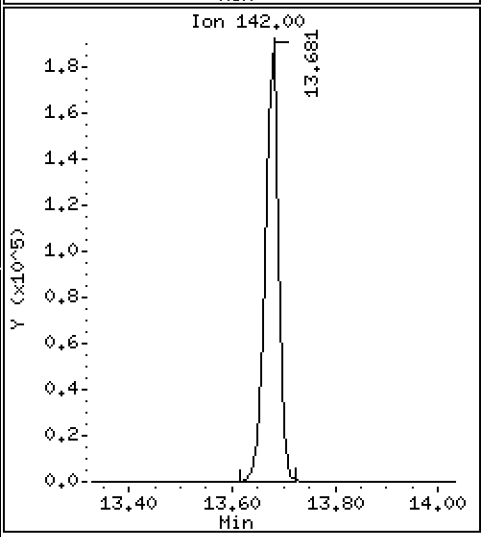
16 2-Methylnaphthalene

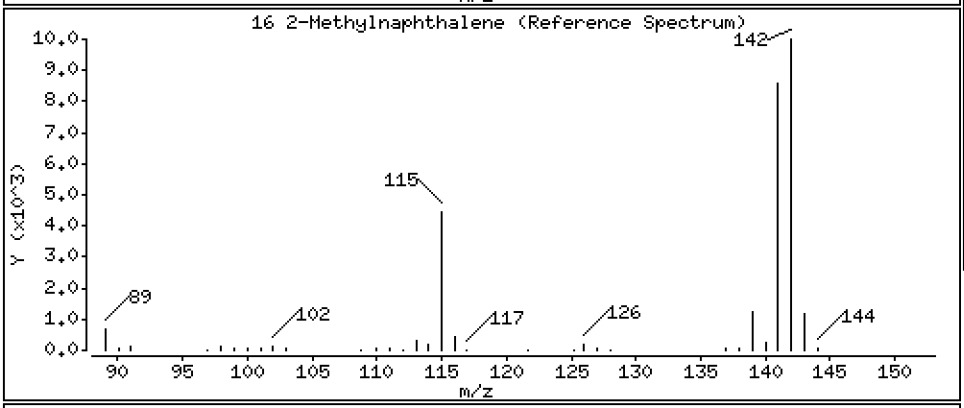
Concentration: 2.845 ug/mL

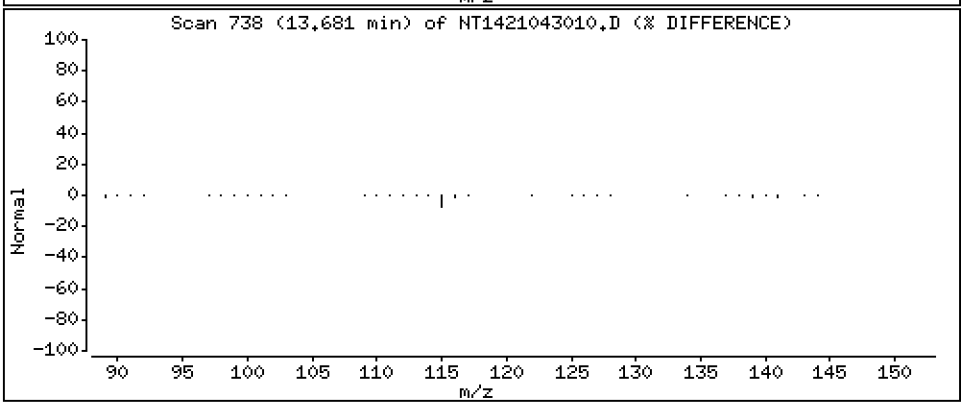












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

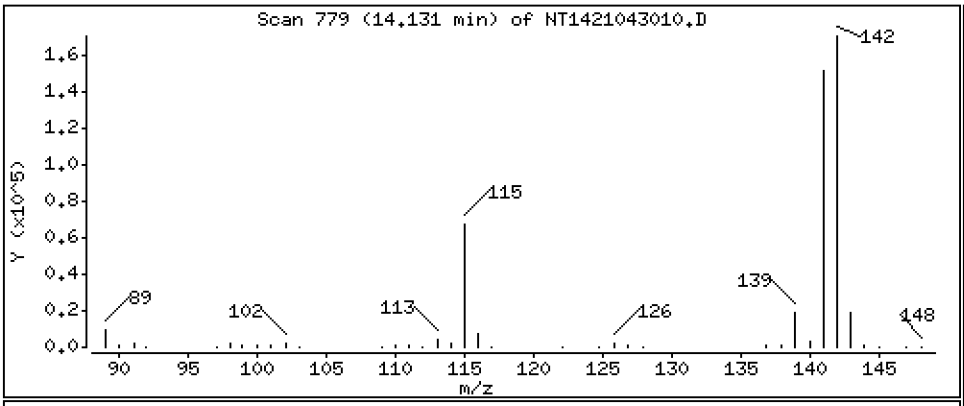
Operator: VTS

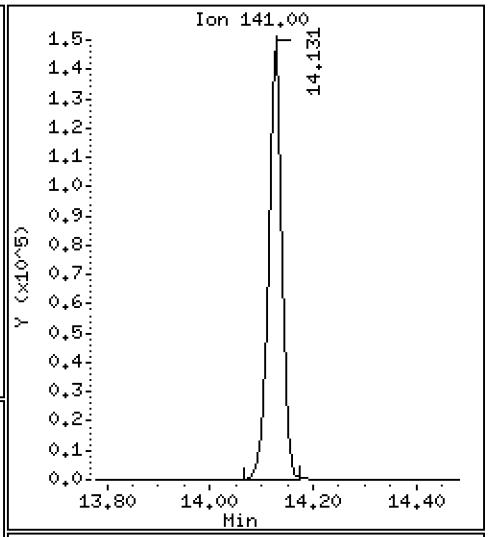
Column phase: Rxi-17Sil MS

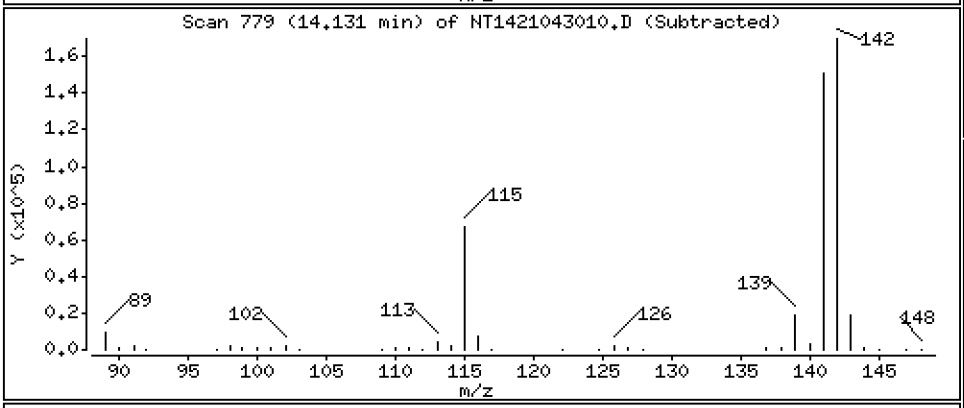
Column diameter: 0.25

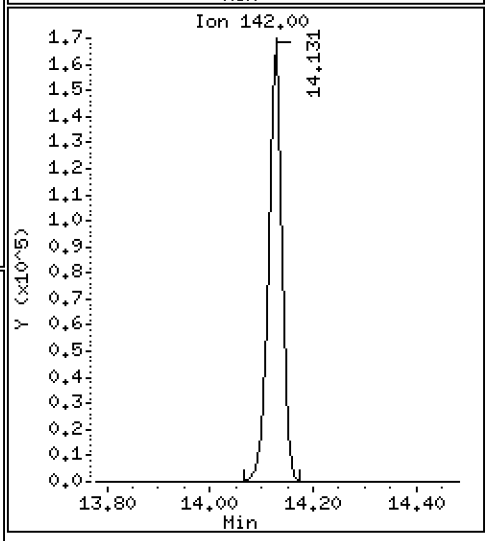
17 1-methylnaphthalene

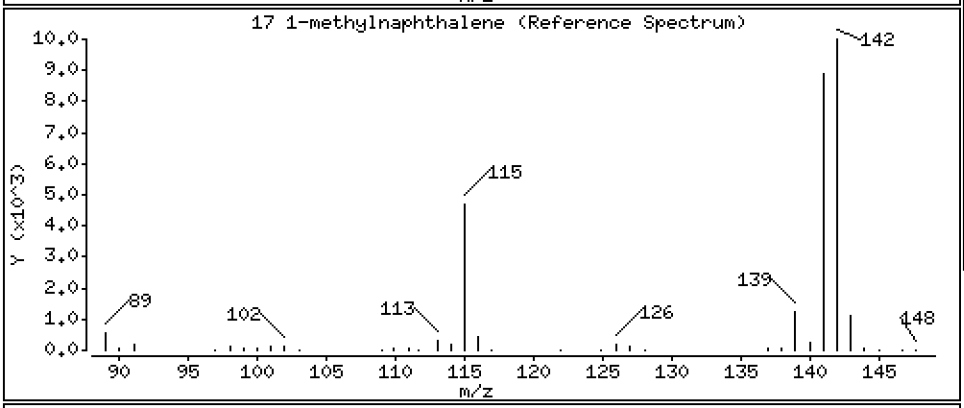
Concentration: 2.821 ug/mL

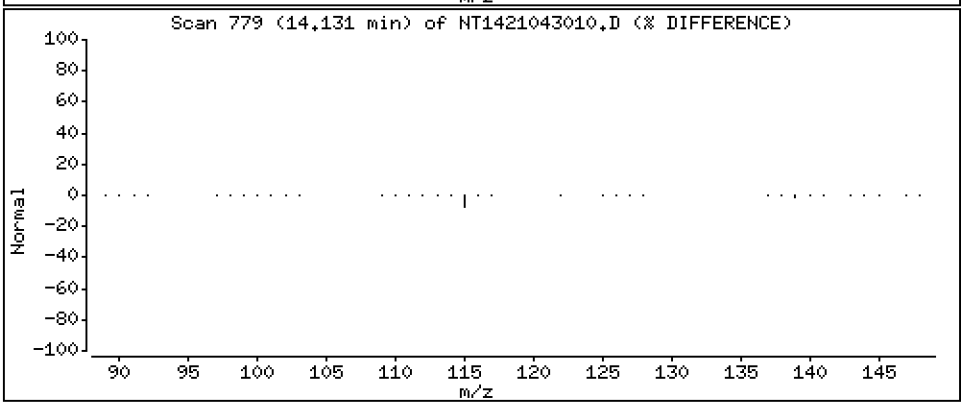












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

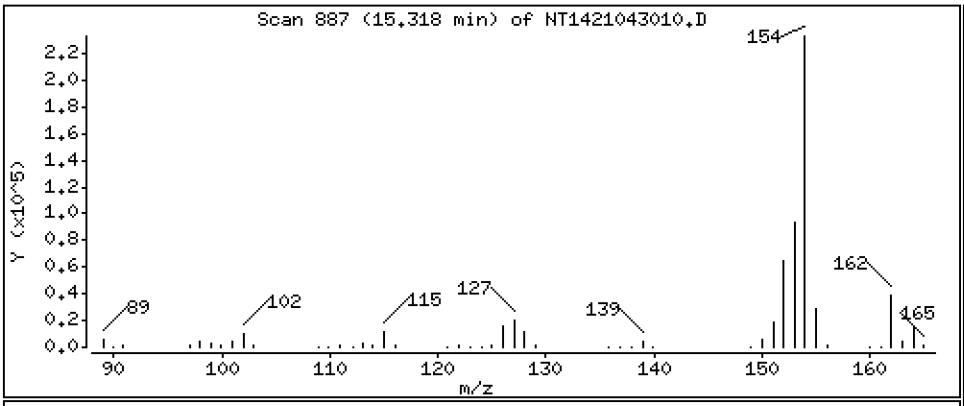
Operator: VTS

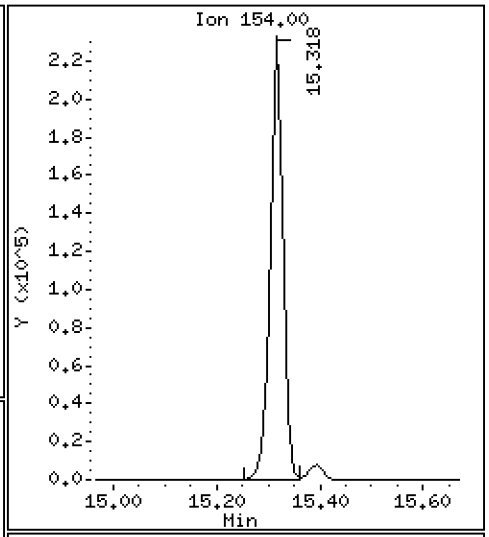
Column phase: Rxi-17Sil MS

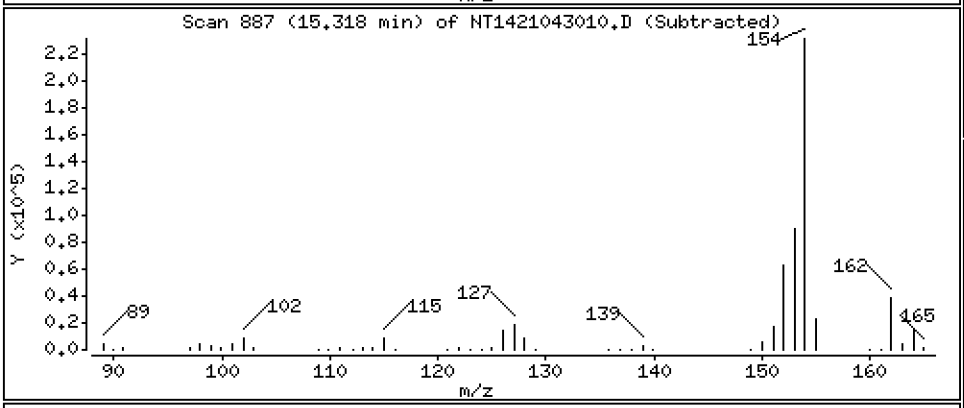
Column diameter: 0.25

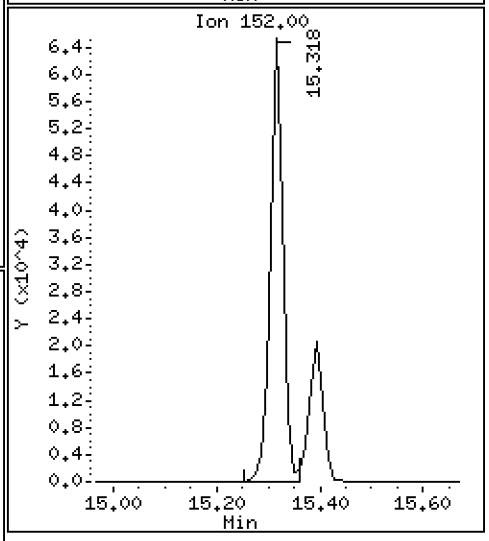
18 Biphenyl

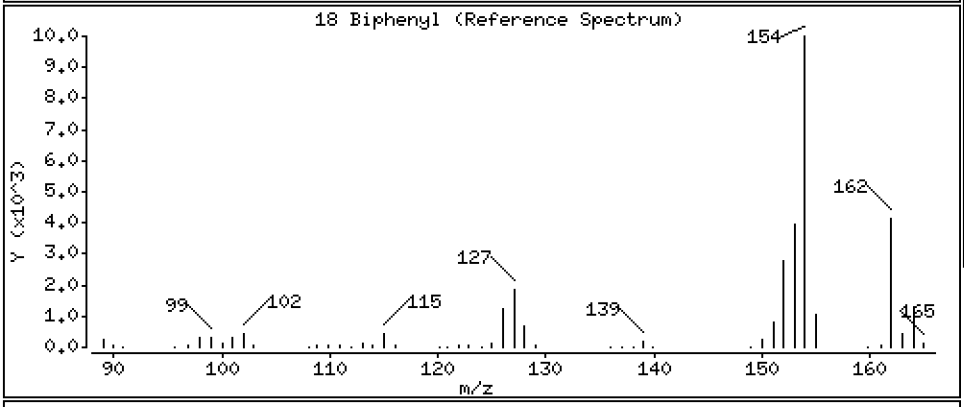
Concentration: 2.765 ug/mL

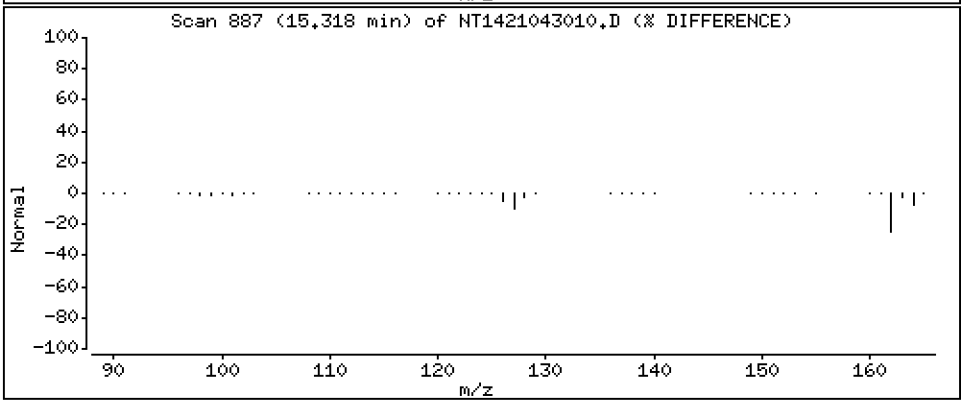












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

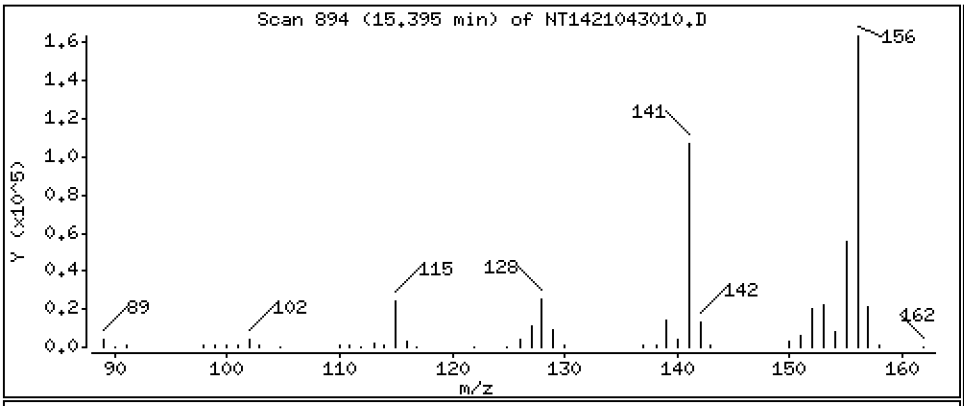
Operator: VTS

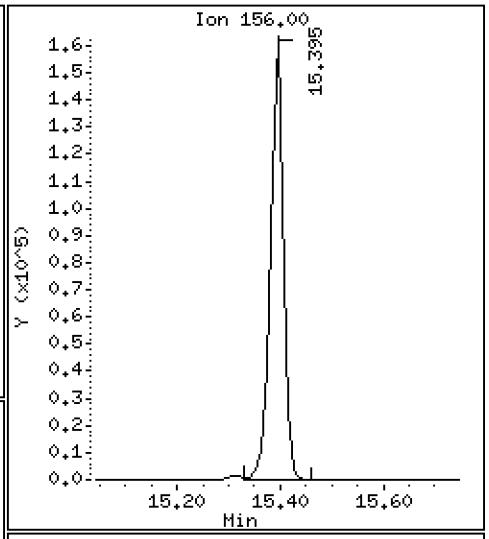
Column phase: Rxi-17Sil MS

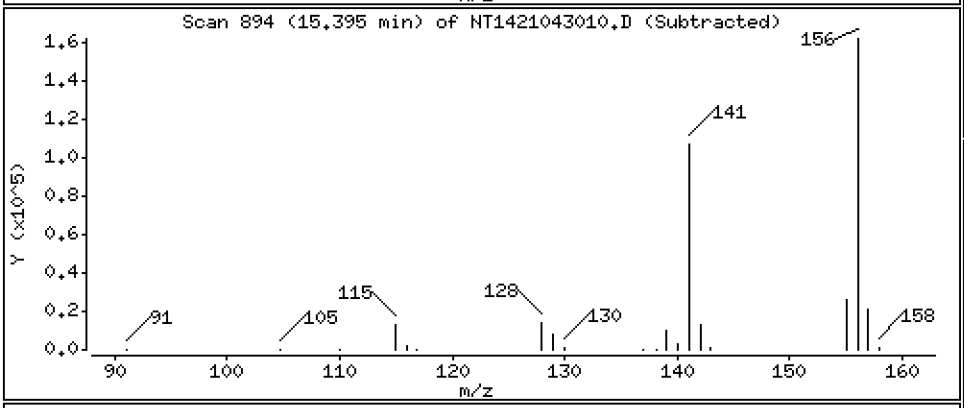
Column diameter: 0.25

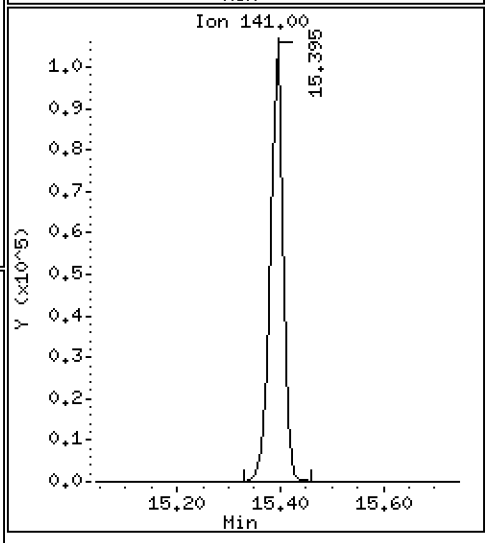
19 2,6-Dimethylnaphthalene

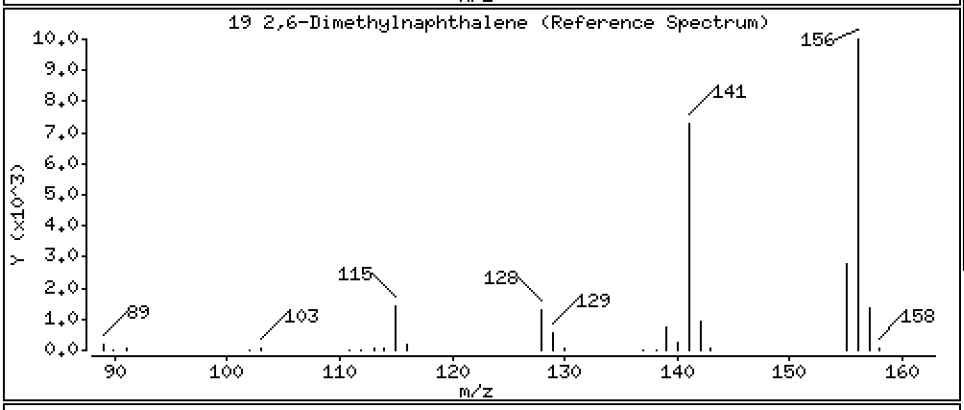
Concentration: 2.822 ug/mL

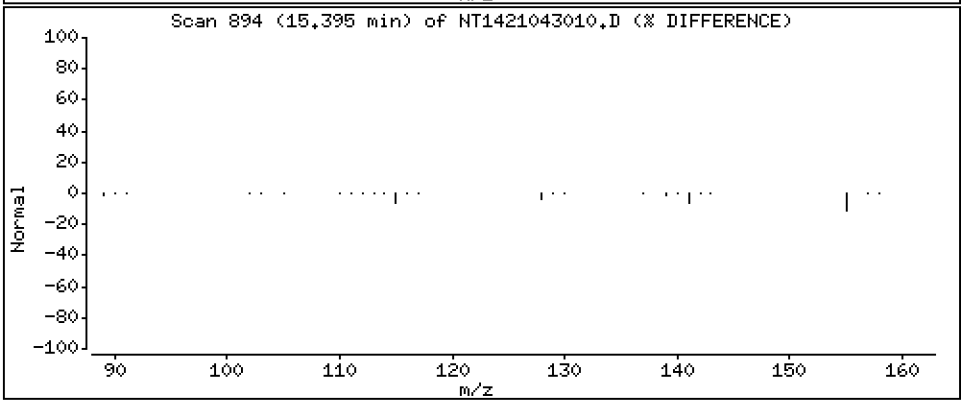












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

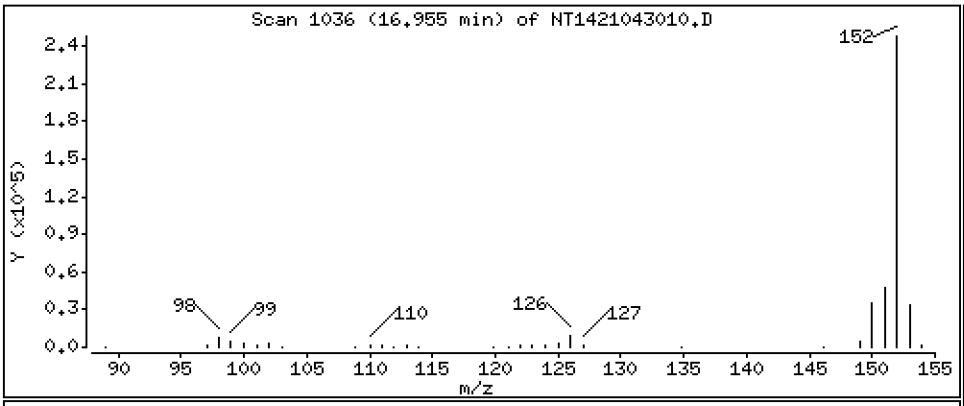
Operator: VTS

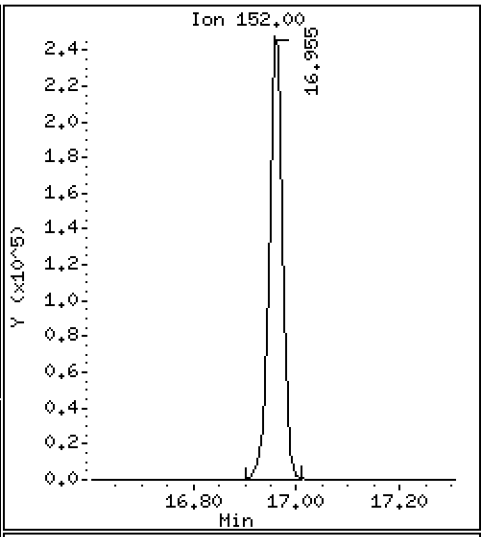
Column phase: Rxi-17Sil MS

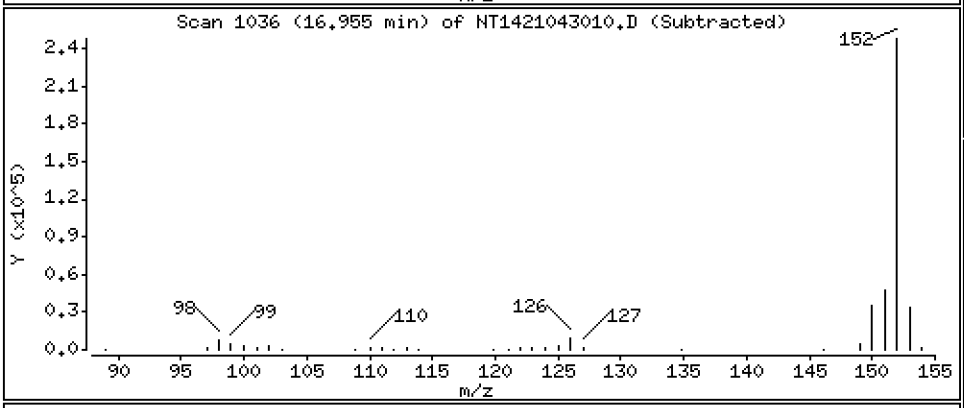
Column diameter: 0.25

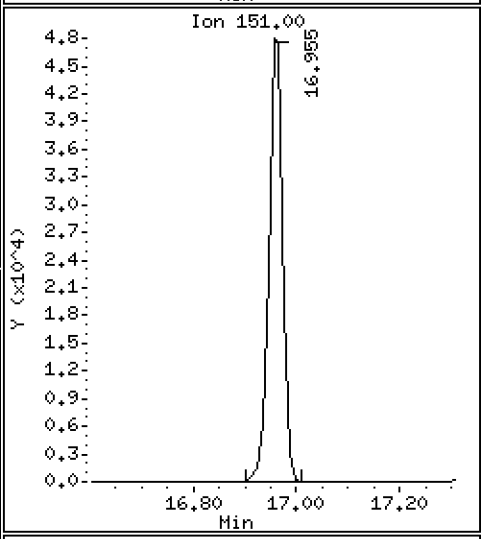
20 Acenaphthylene

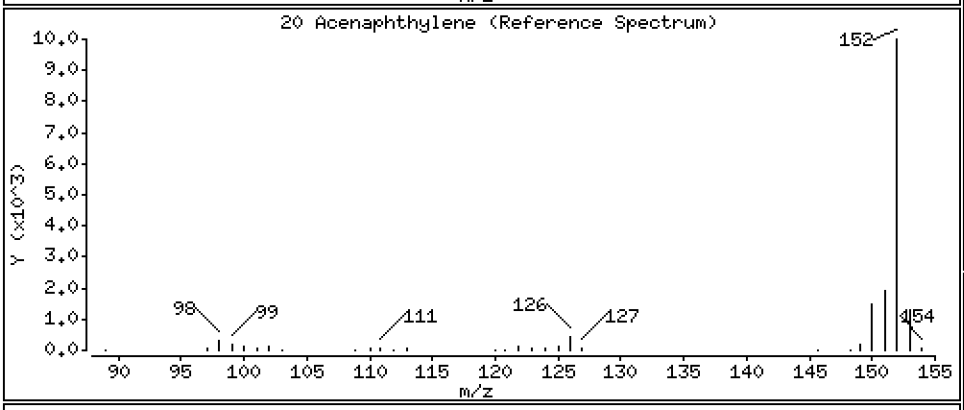
Concentration: 2.889 ug/mL

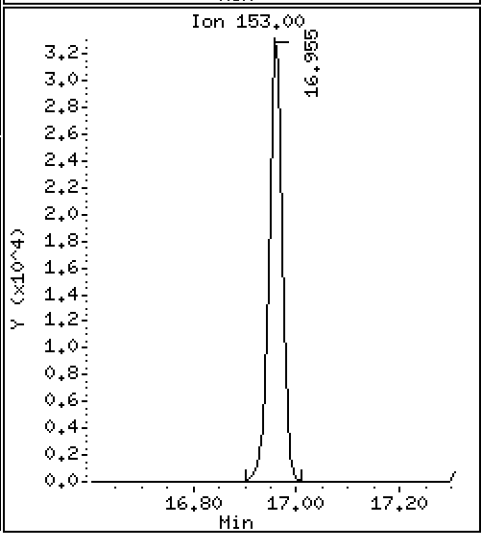


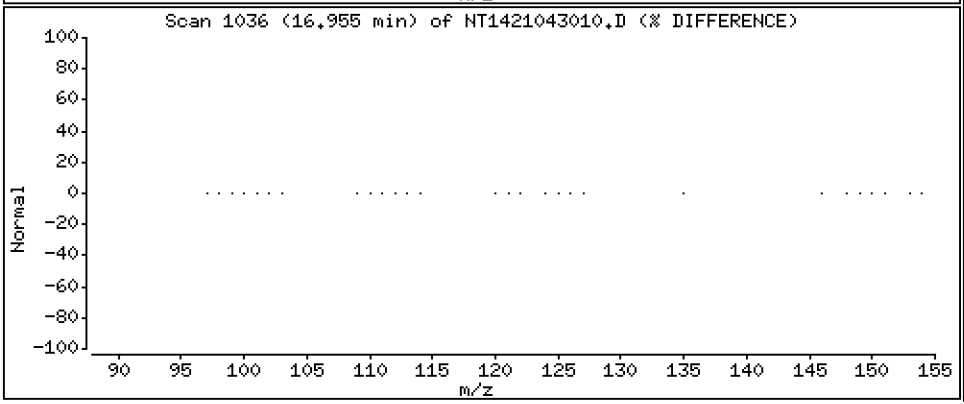












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

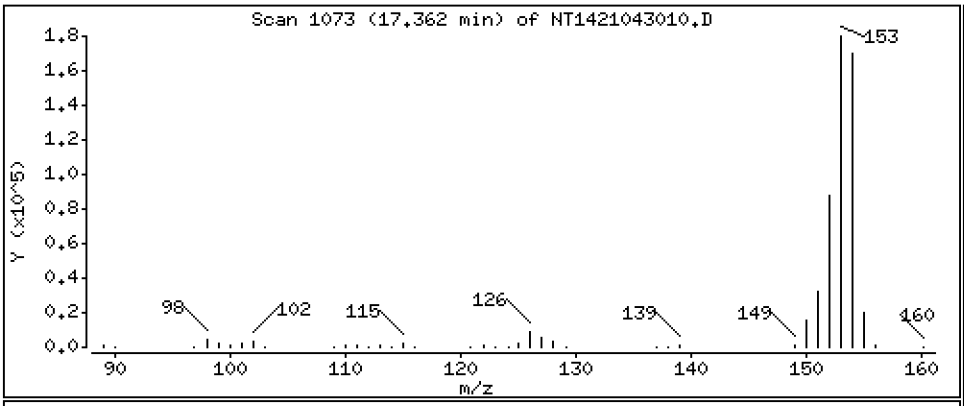
Operator: VTS

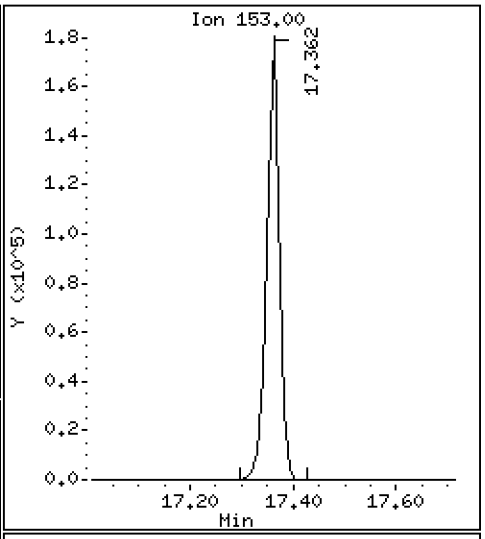
Column phase: Rxi-17Sil MS

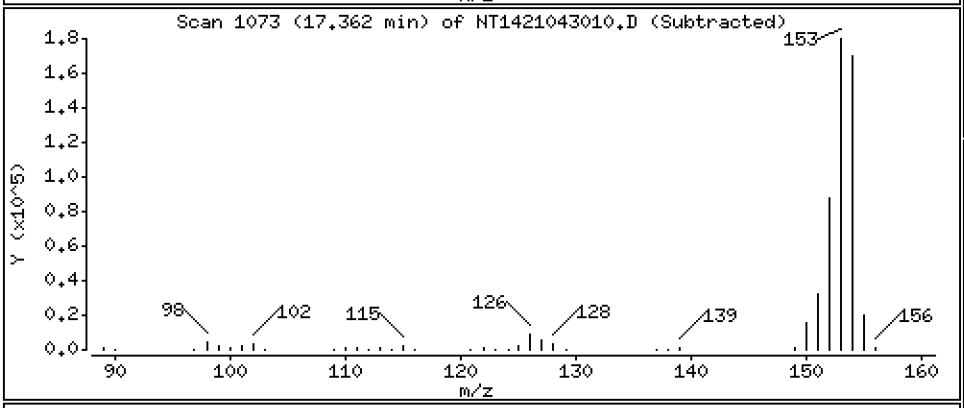
Column diameter: 0.25

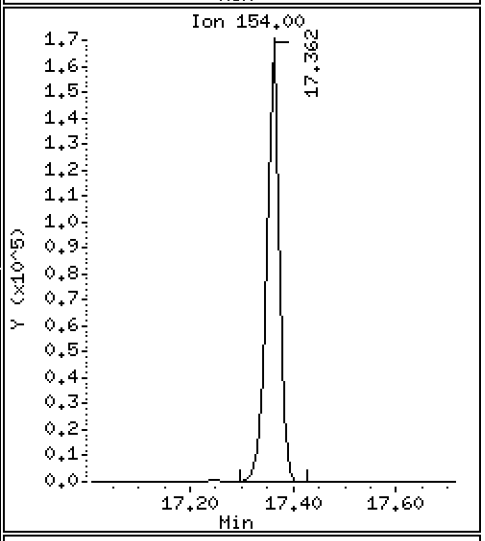
22 Acenaphthene

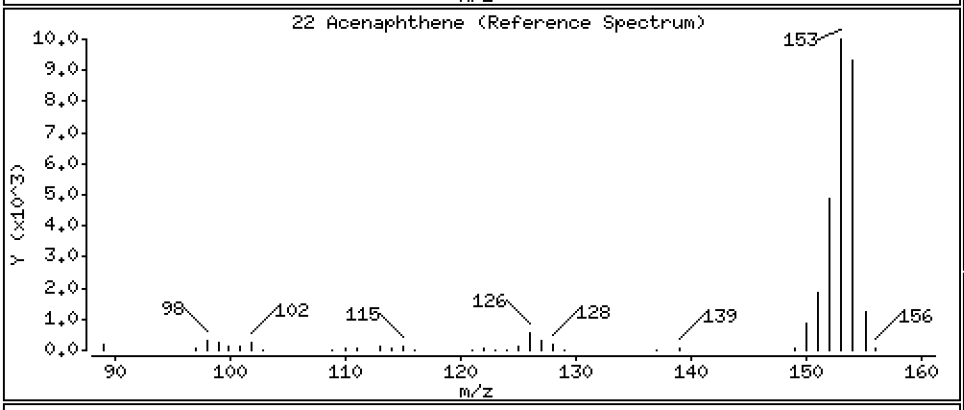
Concentration: 3.010 ug/mL

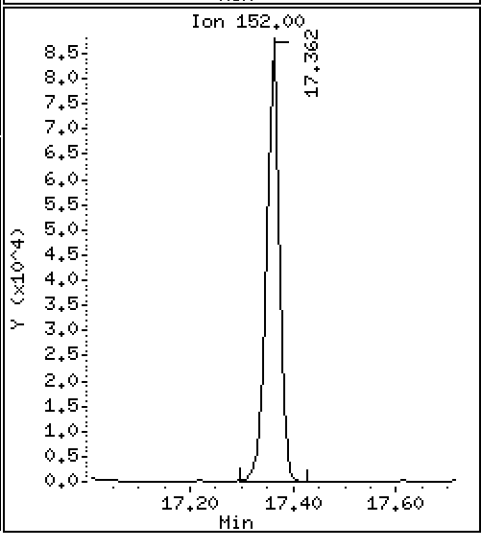


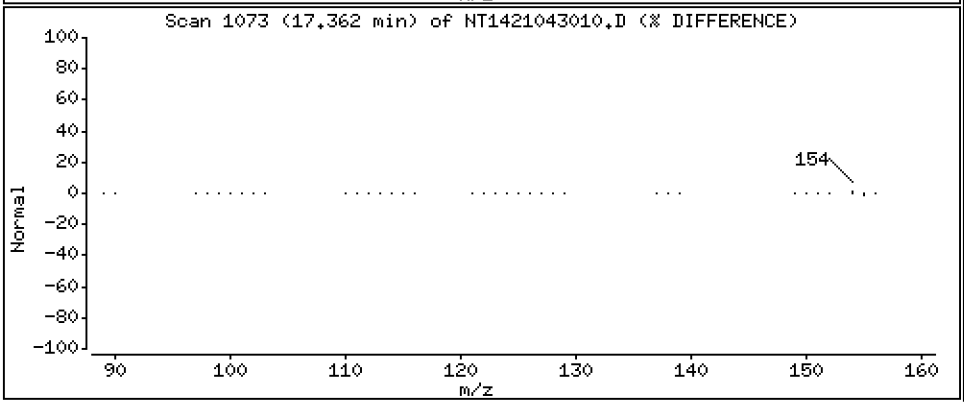












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

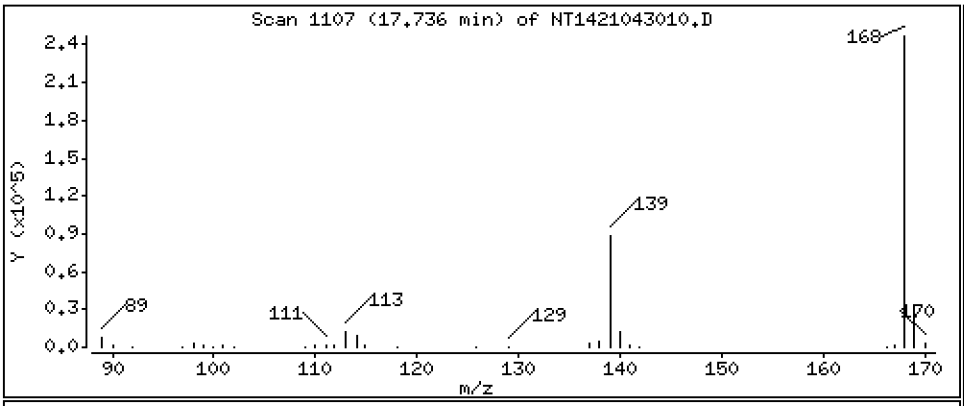
Operator: VTS

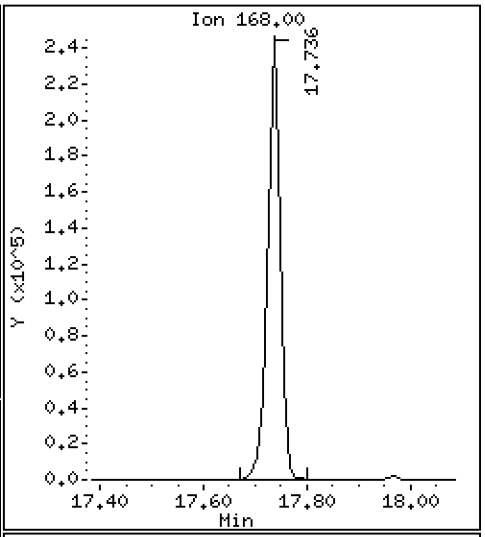
Column phase: Rxi-17Sil MS

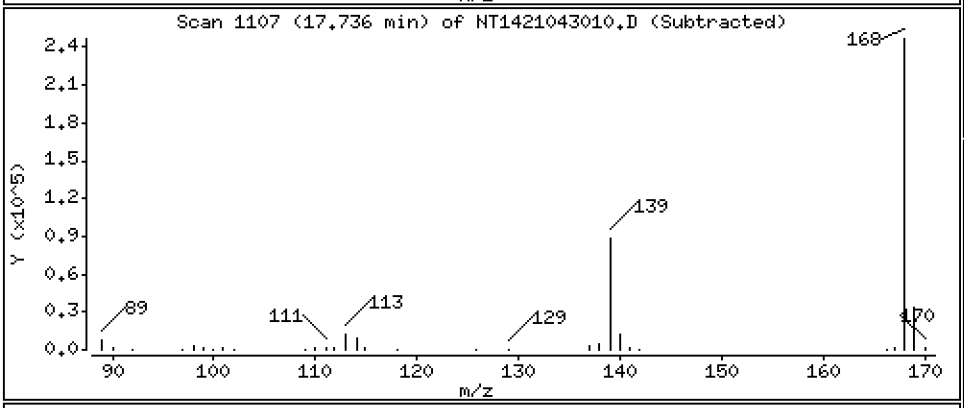
Column diameter: 0.25

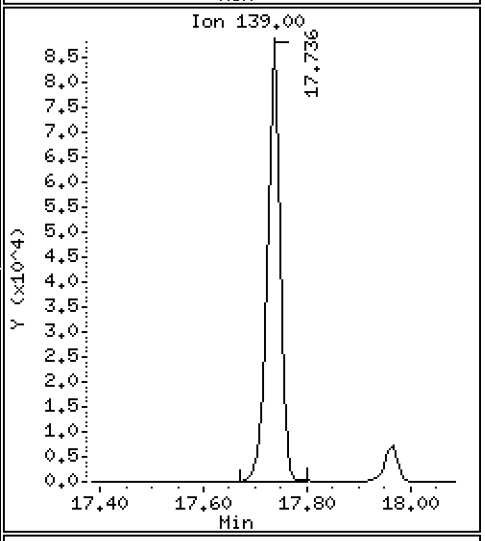
23 Dibenzofuran

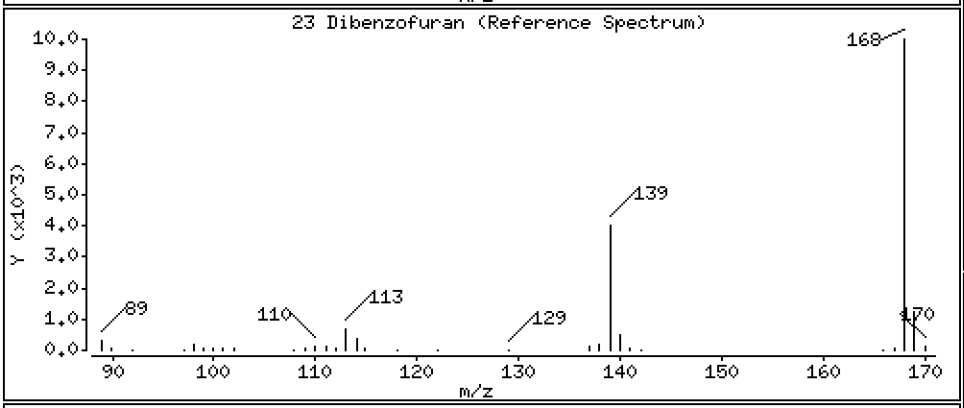
Concentration: 2.768 ug/mL

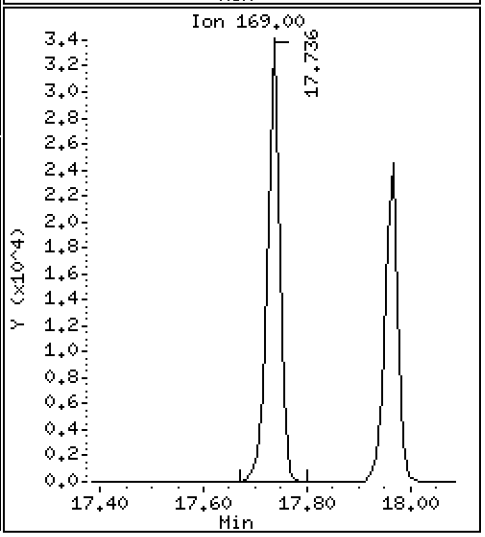


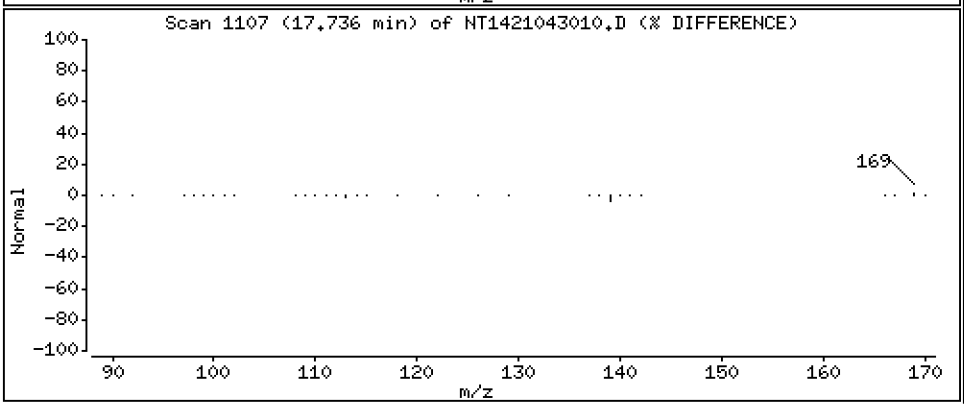












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

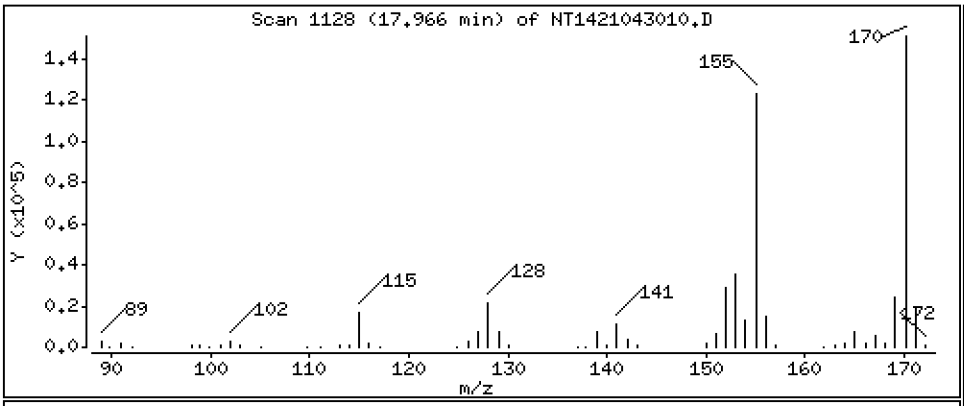
Operator: VTS

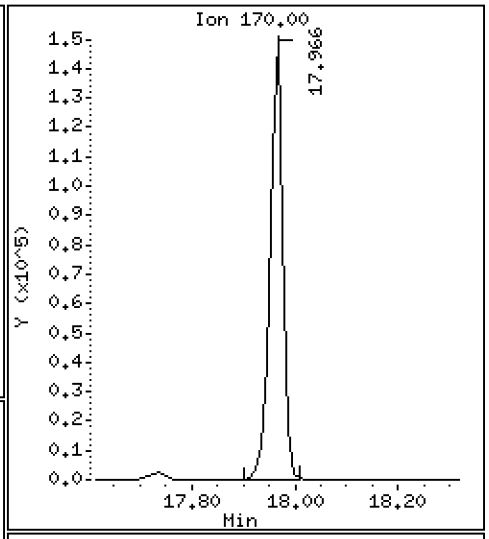
Column phase: Rxi-17Sil MS

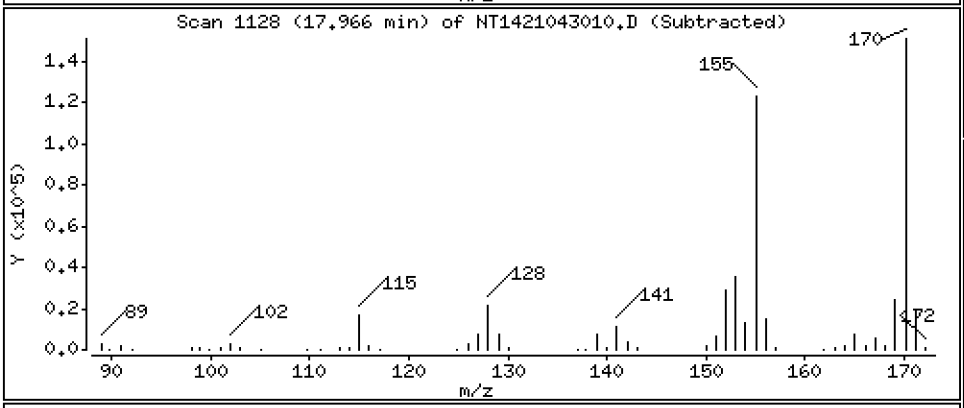
Column diameter: 0.25

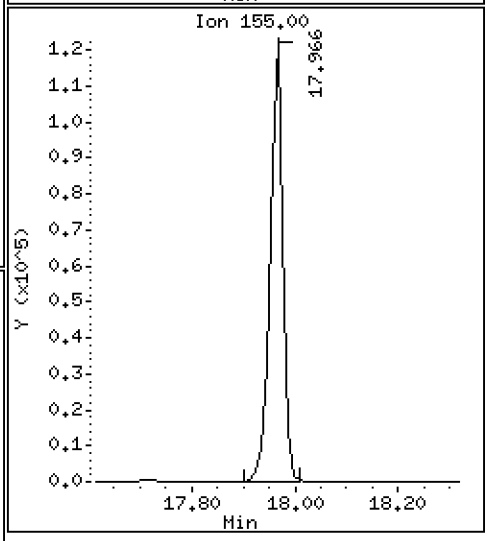
24 1,6,7-Trimethylnaphthalene

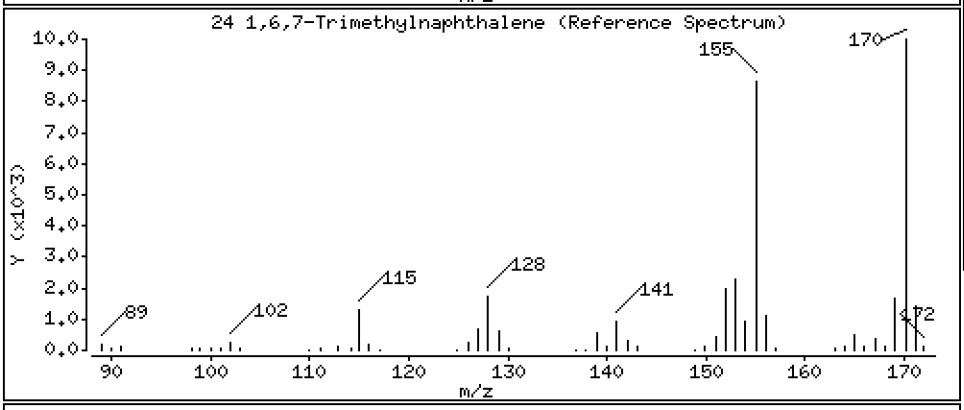
Concentration: 2.923 ug/mL

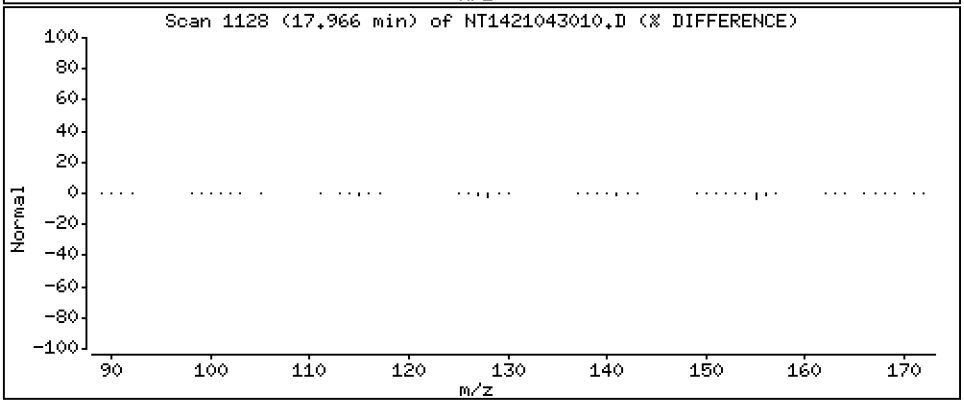












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

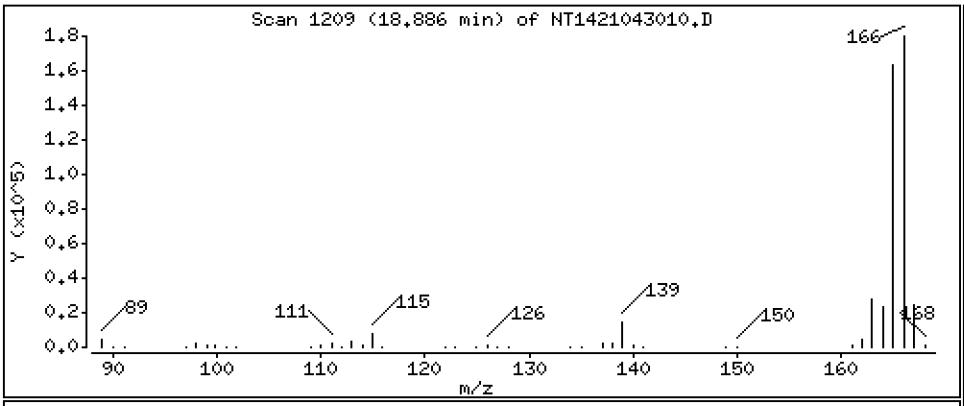
Operator: VTS

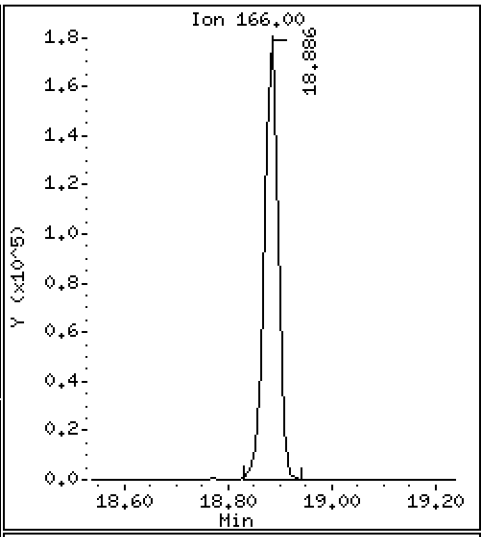
Column phase: Rxi-17Sil MS

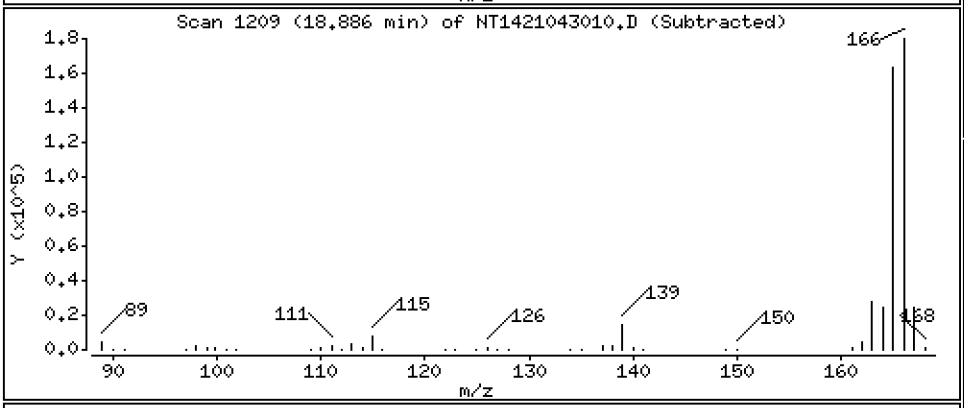
Column diameter: 0.25

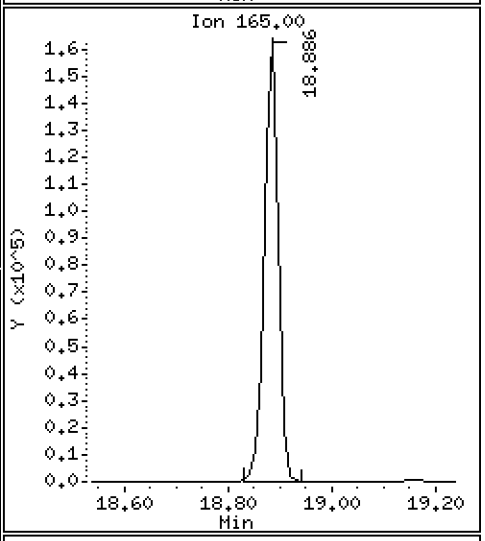
26 Fluorene

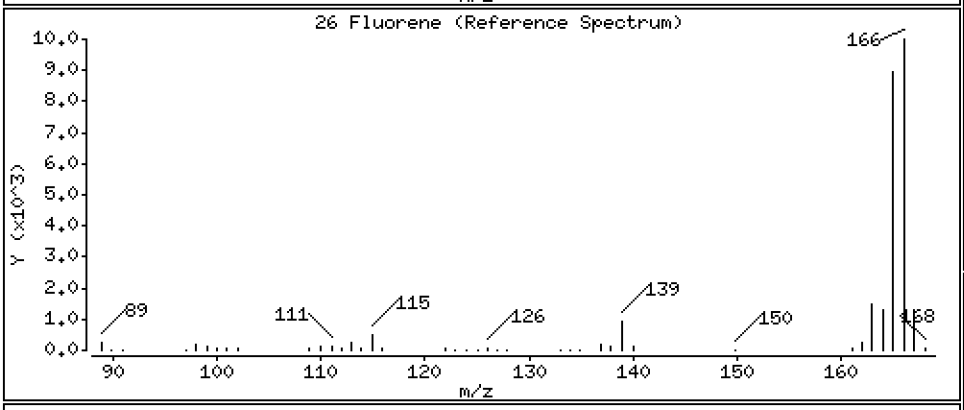
Concentration: 2.844 ug/mL

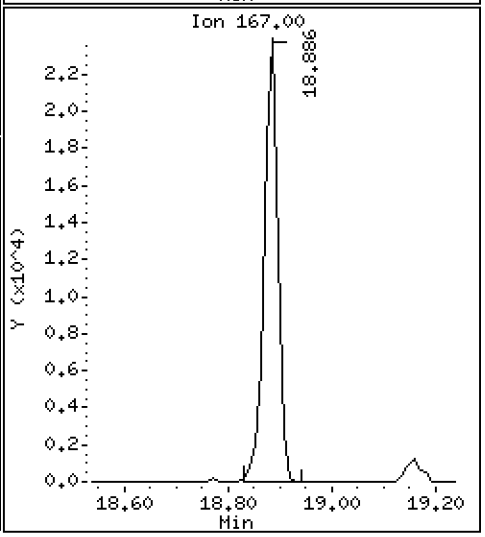


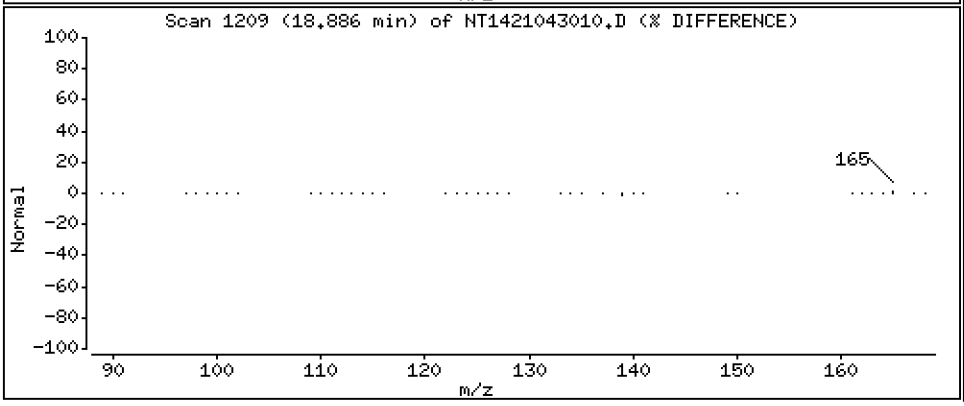












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

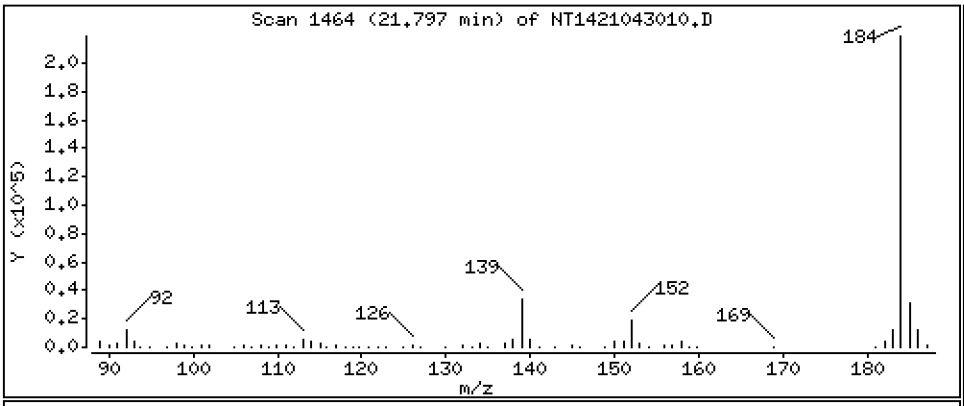
Operator: VTS

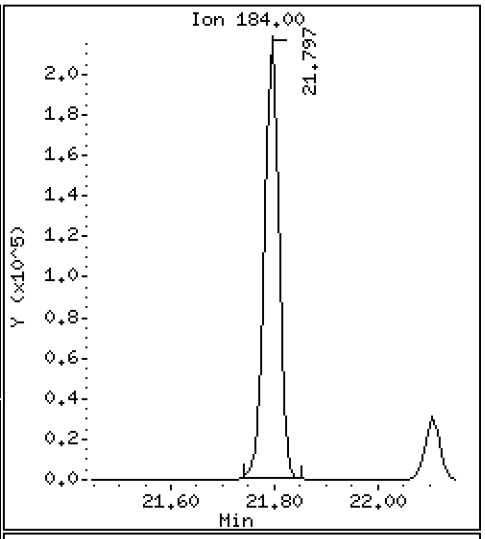
Column phase: Rxi-17Sil MS

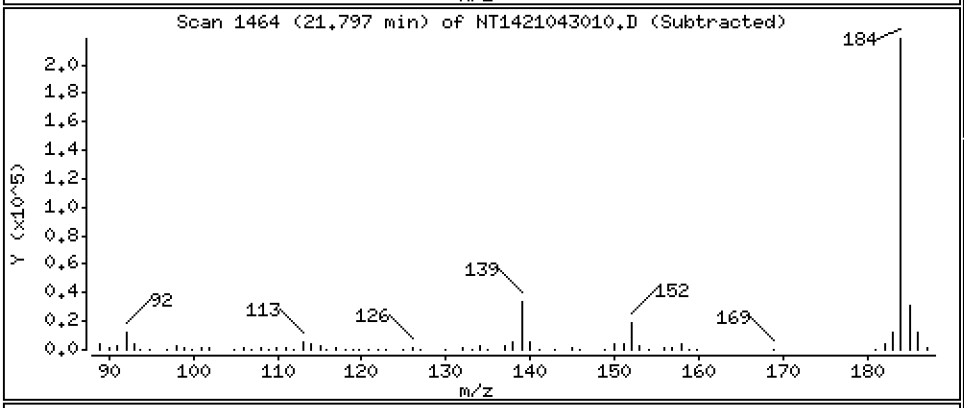
Column diameter: 0.25

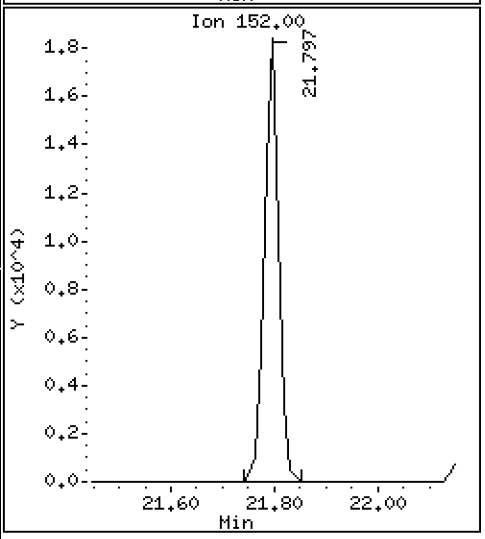
30 Dibenzothiophene

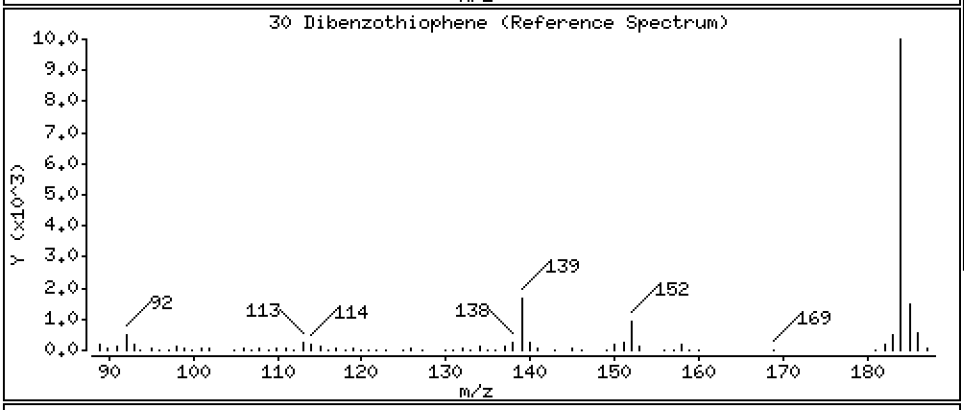
Concentration: 2.782 ug/mL

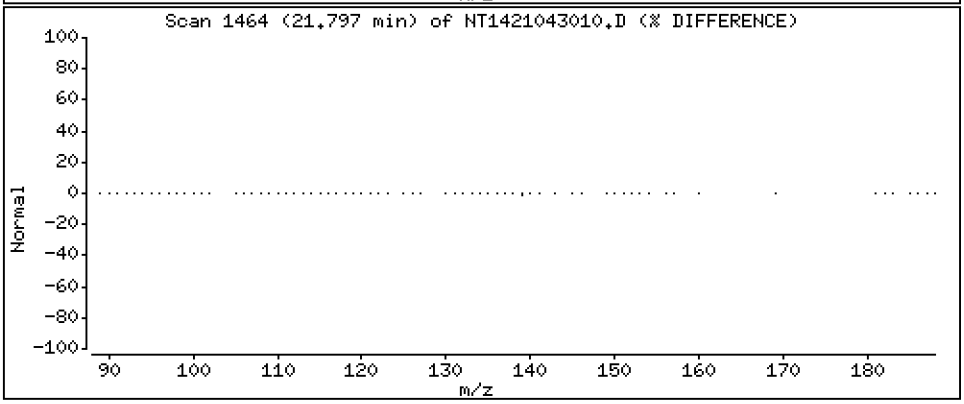












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

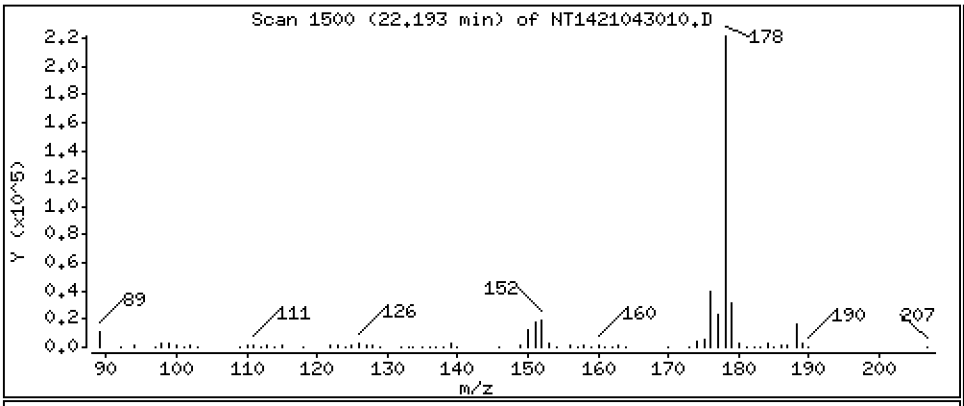
Operator: VTS

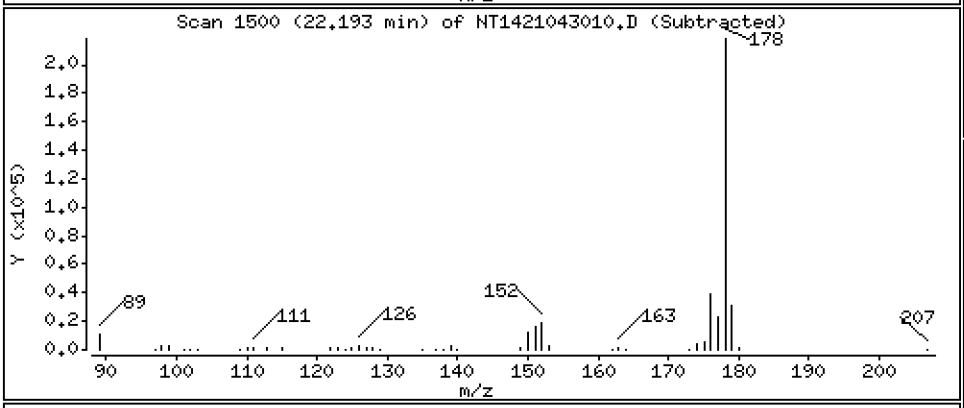
Column phase: Rxi-17Sil MS

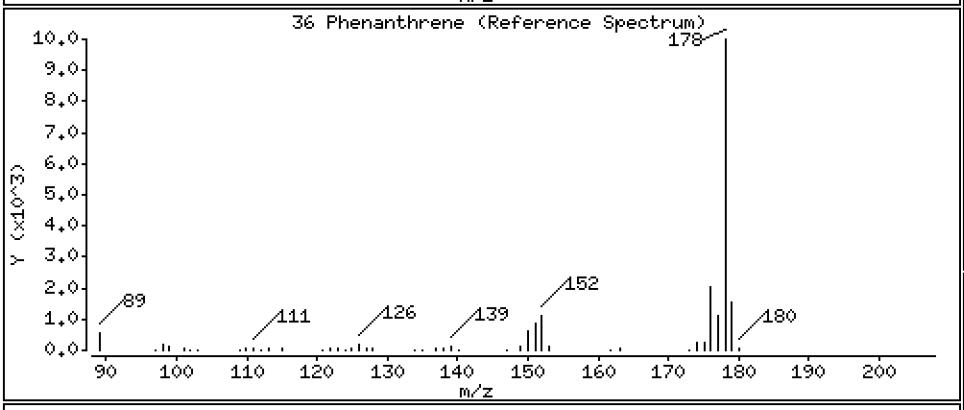
Column diameter: 0.25

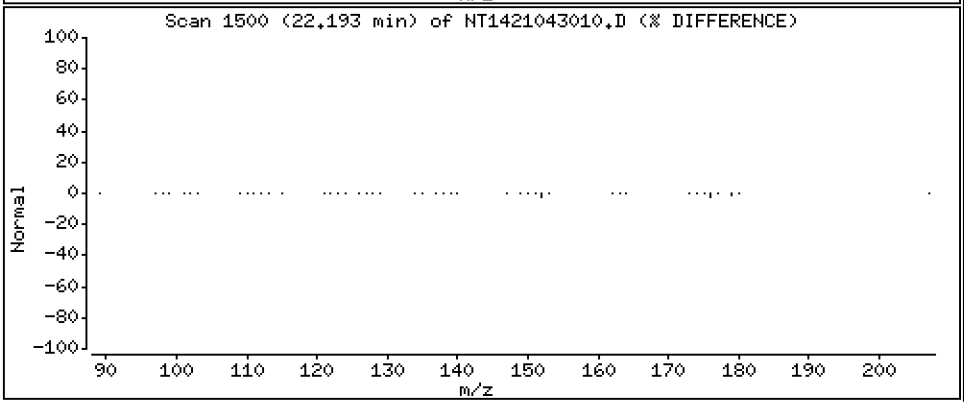
36 Phenanthrene

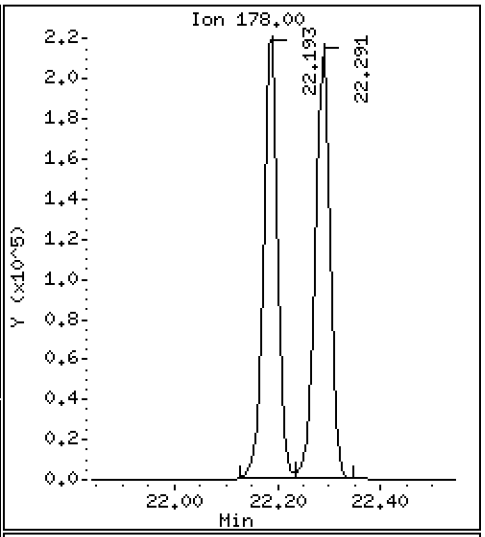
Concentration: 2.468 ug/mL

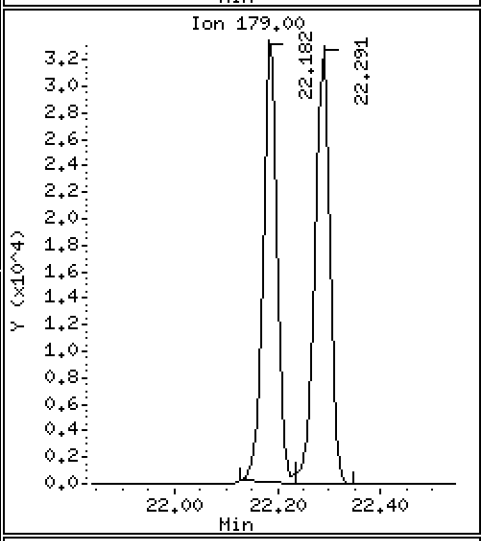


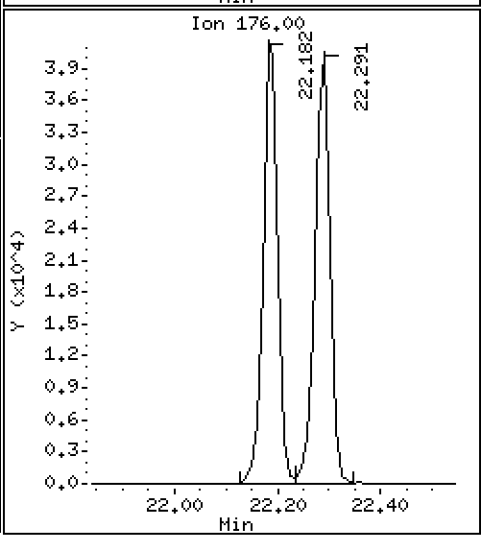












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

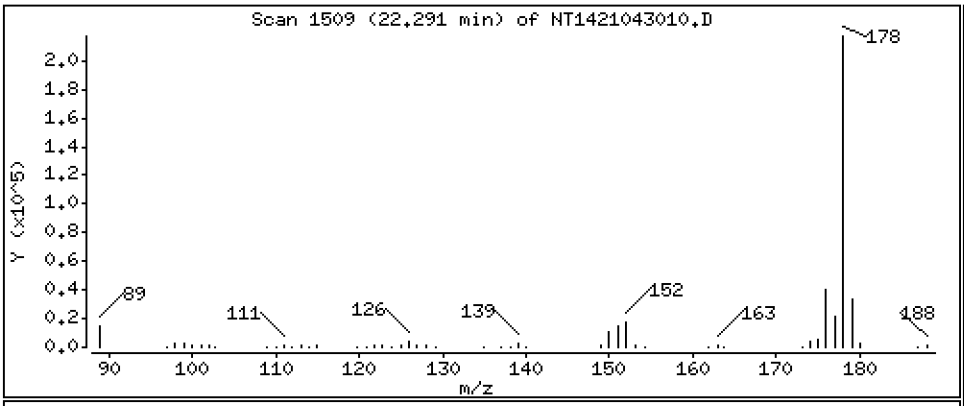
Operator: VTS

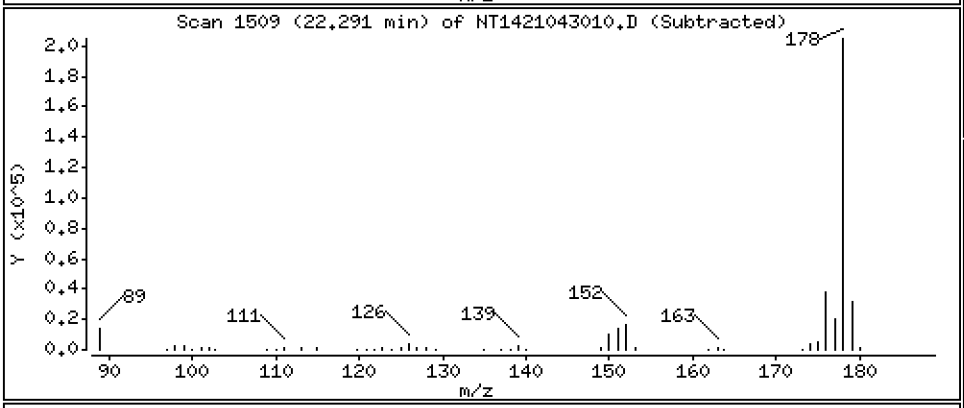
Column phase: Rxi-17Sil MS

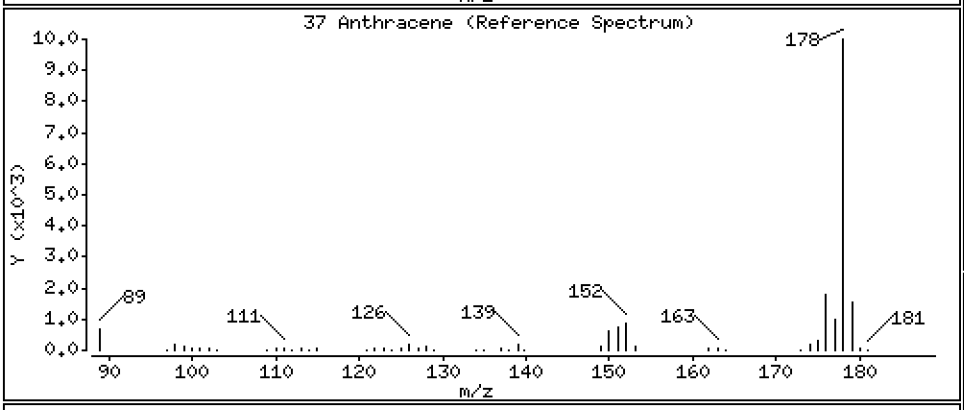
Column diameter: 0.25

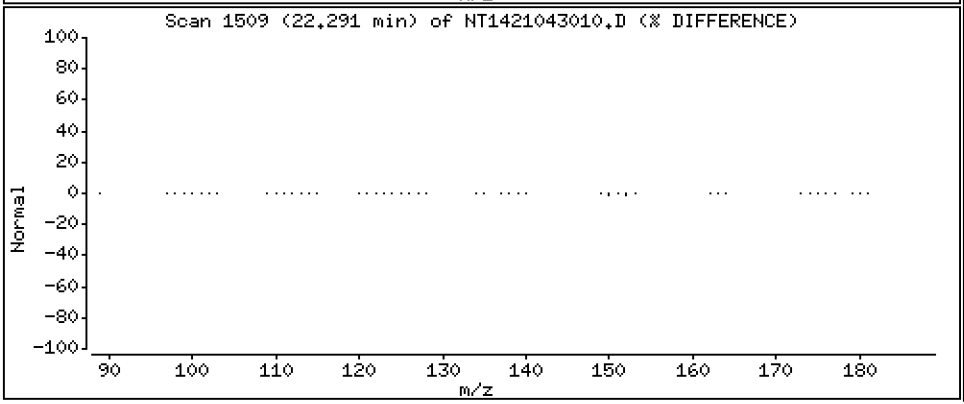
37 Anthracene

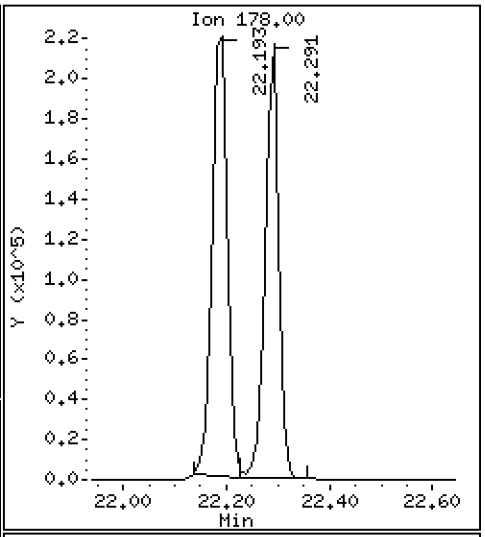
Concentration: 2.492 ug/mL

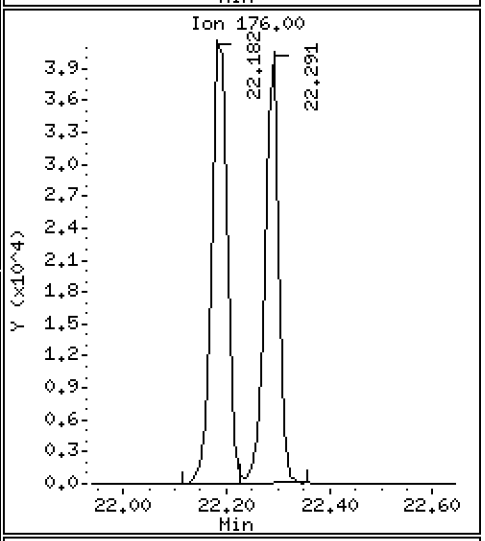


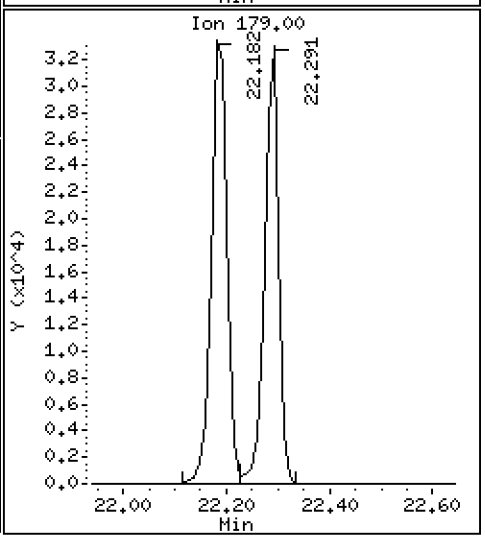












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

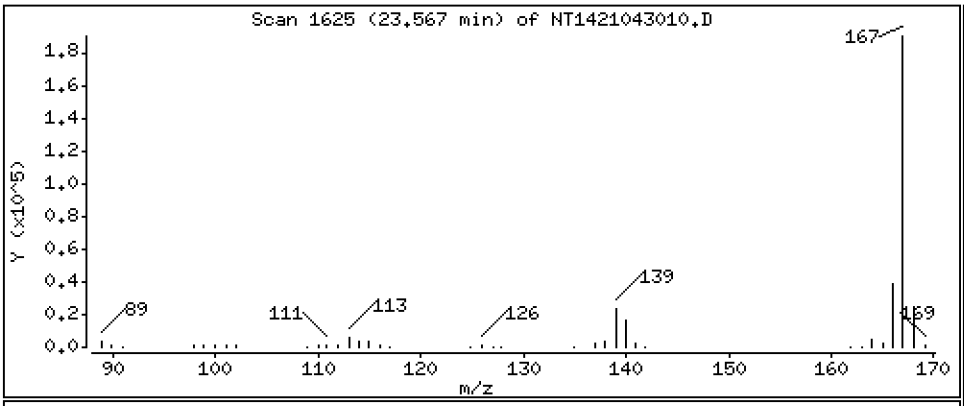
Operator: VTS

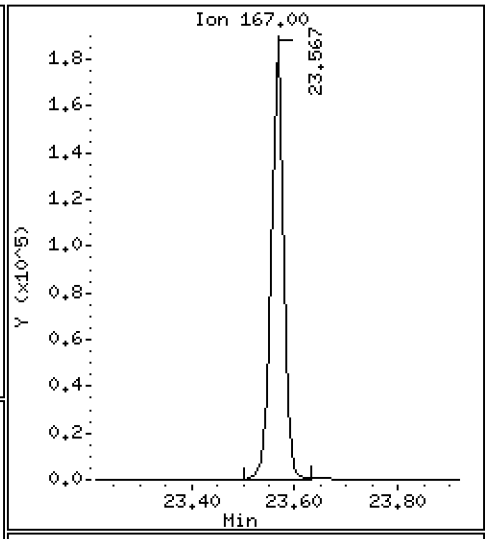
Column phase: Rxi-17Sil MS

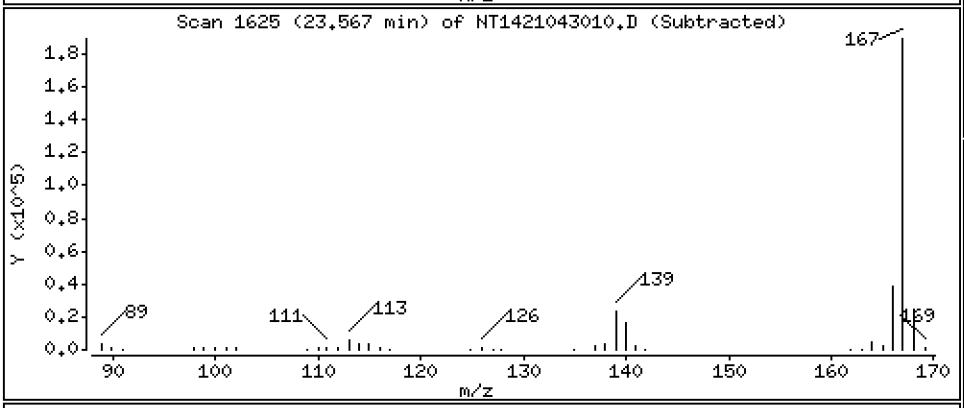
Column diameter: 0.25

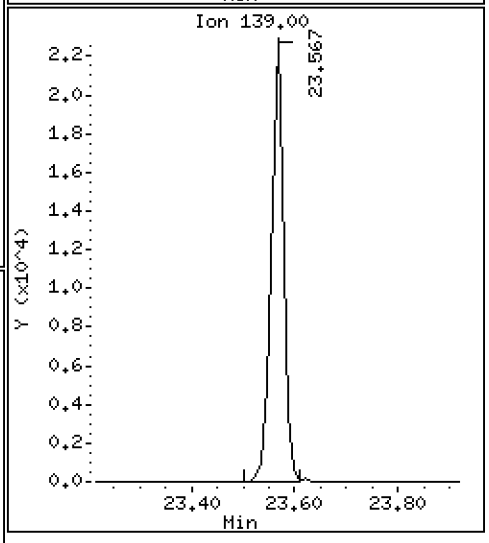
42 Carbazole

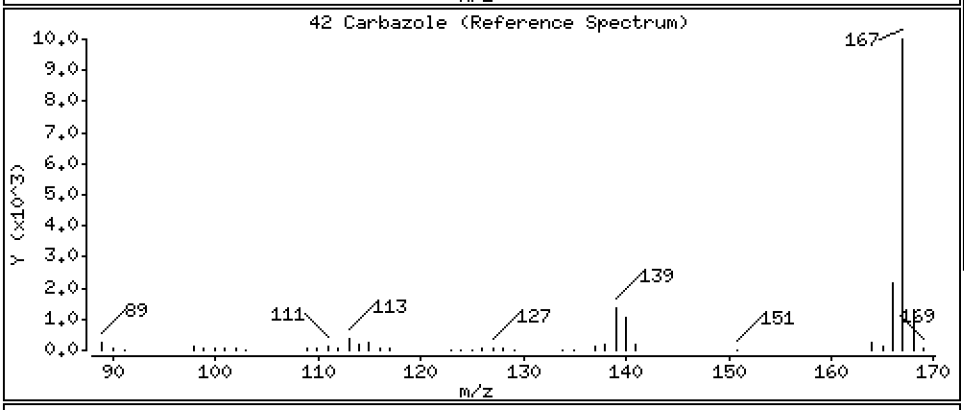
Concentration: 2.343 ug/mL

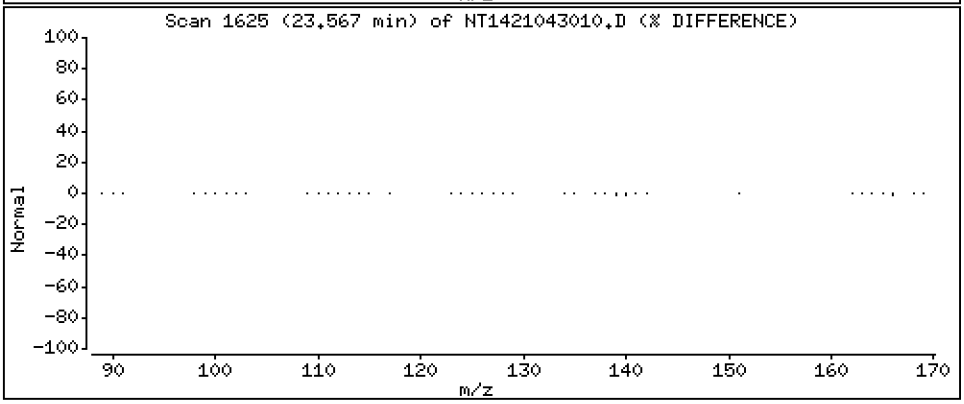












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

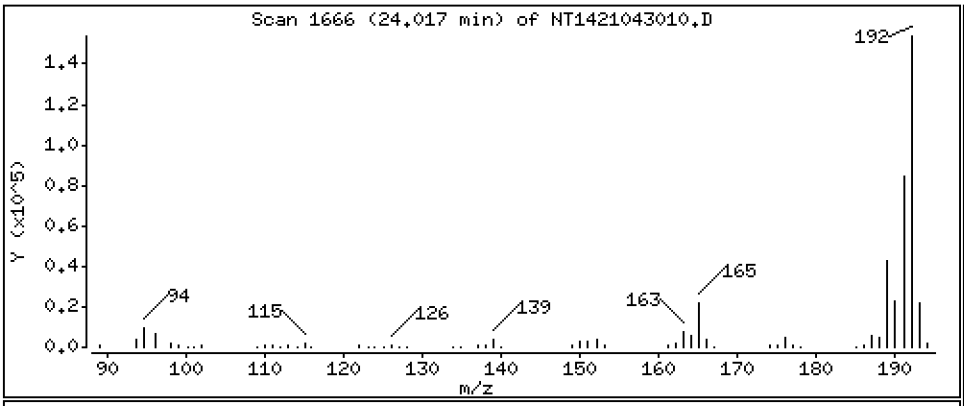
Operator: VTS

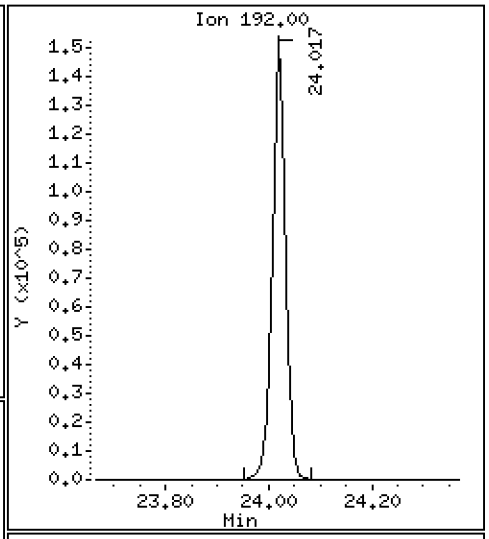
Column phase: Rxi-17Sil MS

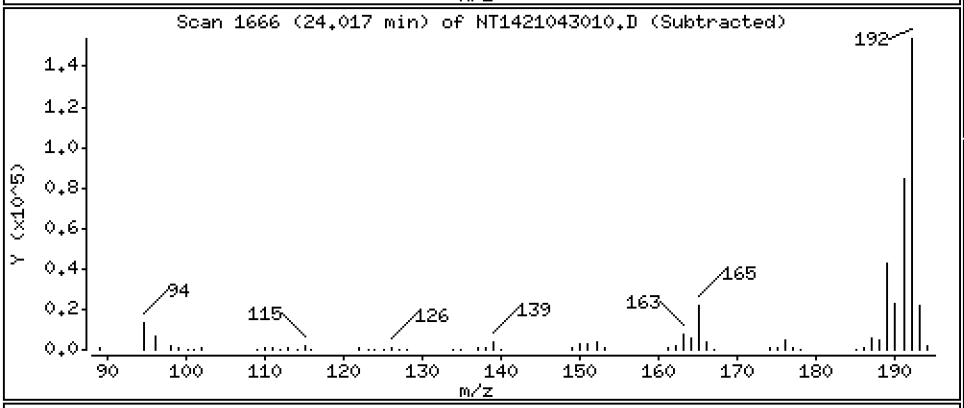
Column diameter: 0.25

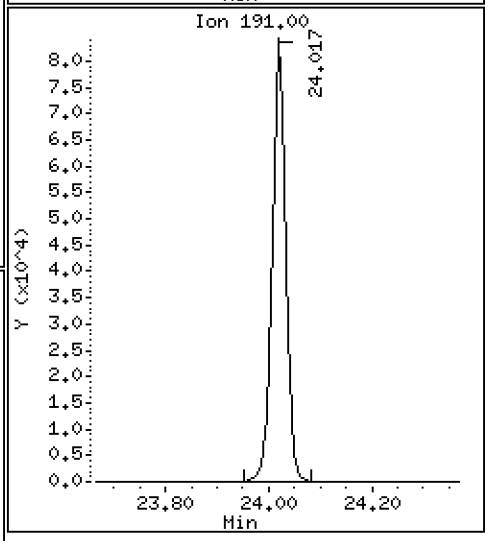
43 1-Methylphenanthrene

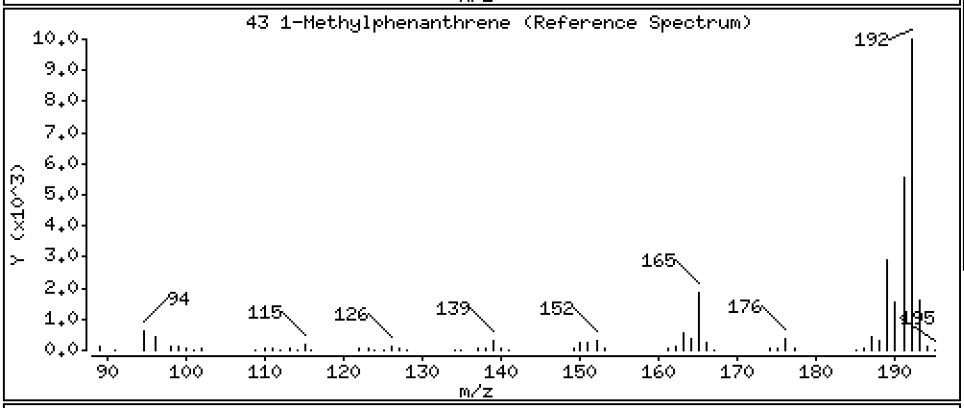
Concentration: 2.594 ug/mL

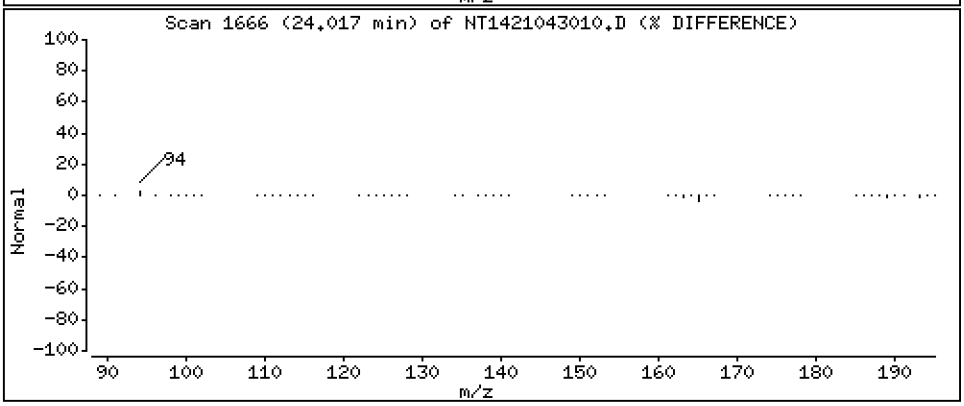












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

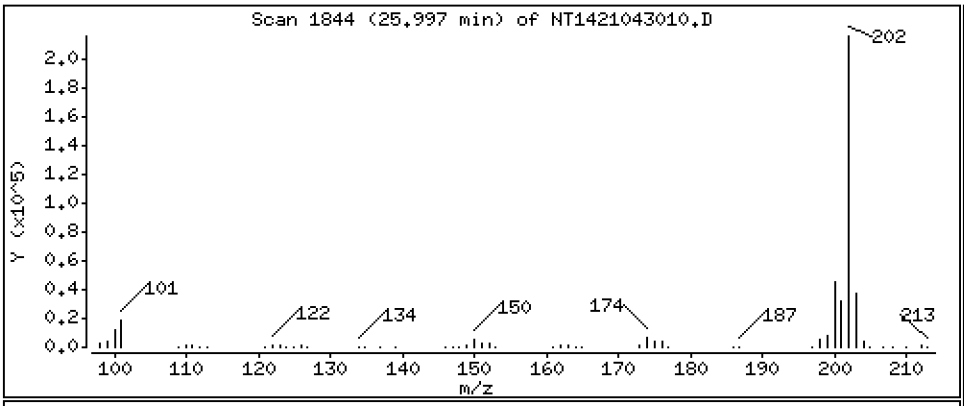
Operator: VTS

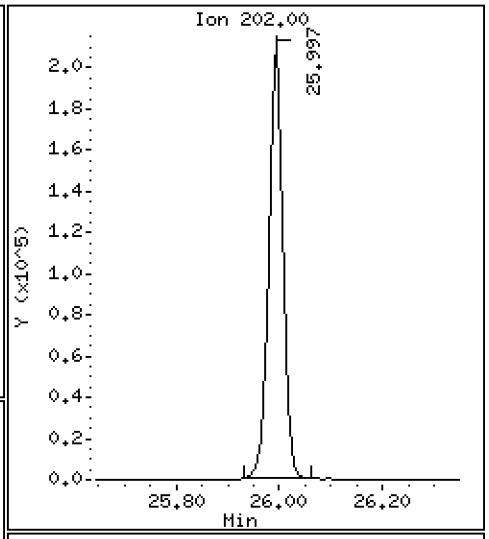
Column phase: Rxi-17Sil MS

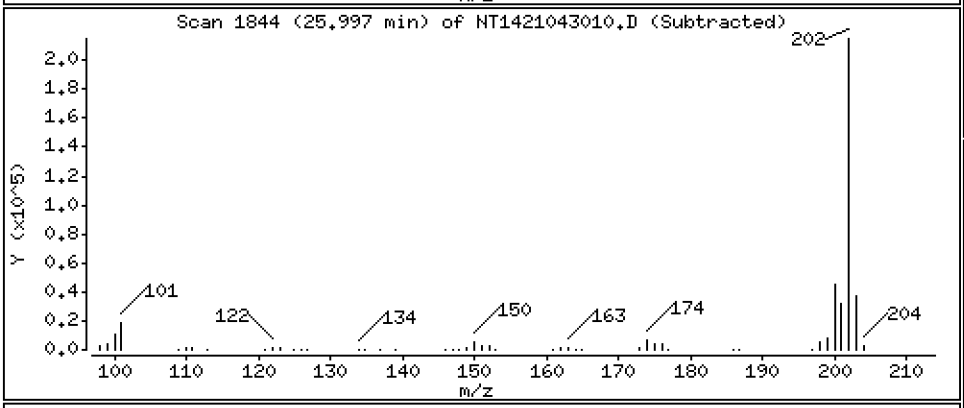
Column diameter: 0.25

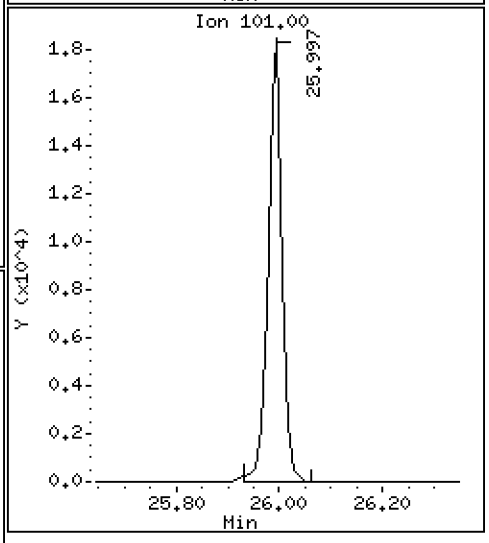
44 Fluoranthene

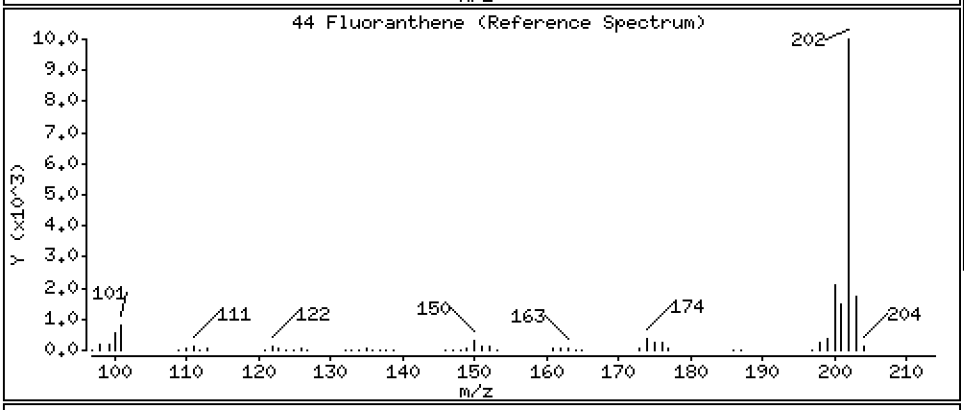
Concentration: 2.634 ug/mL

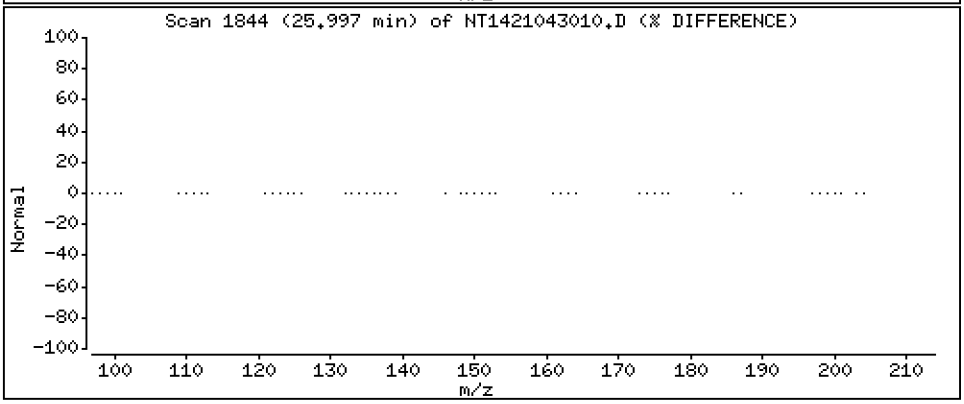












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

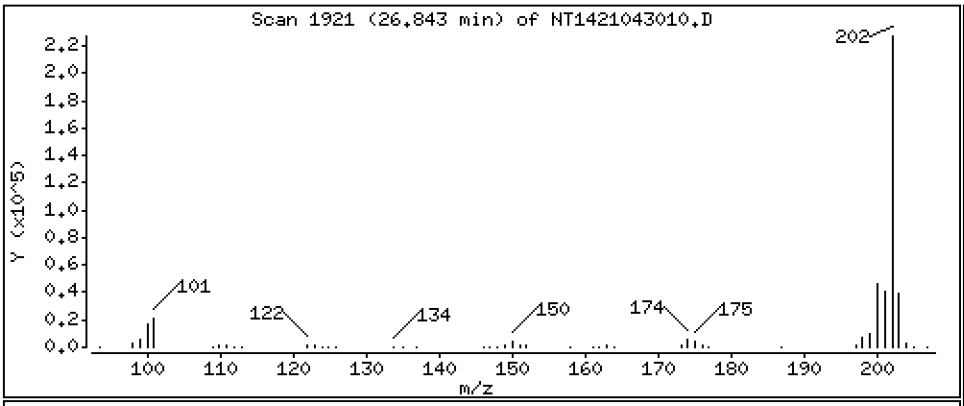
Operator: VTS

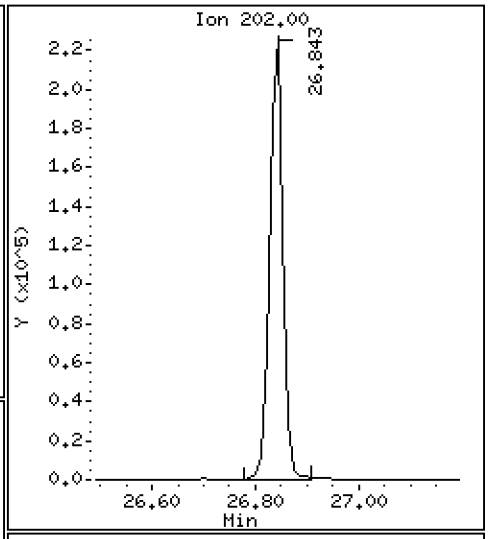
Column phase: Rxi-17Sil MS

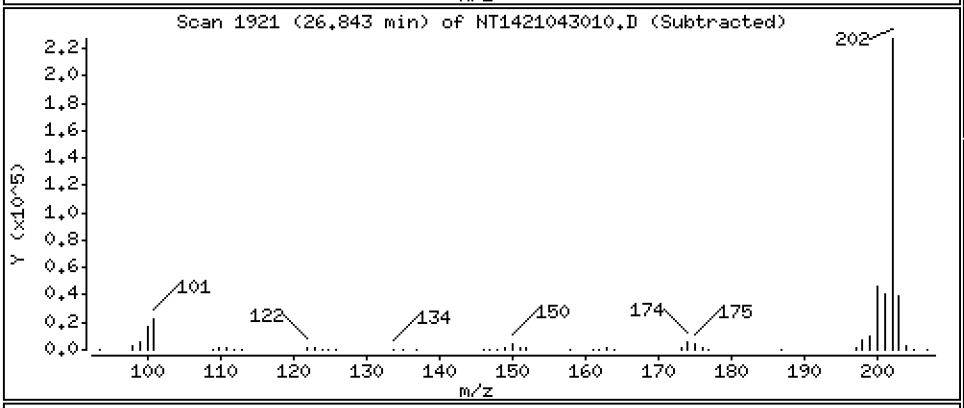
Column diameter: 0.25

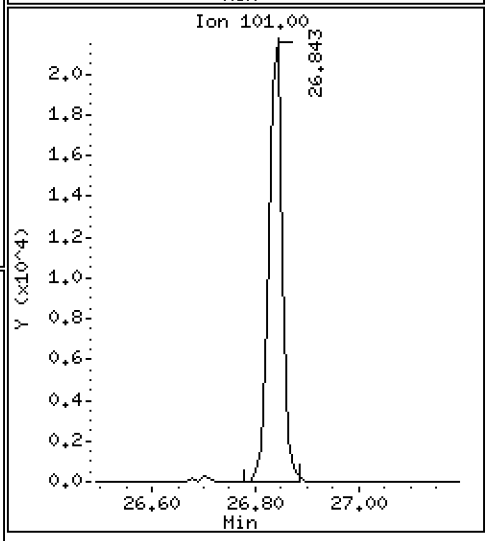
46 Pyrene

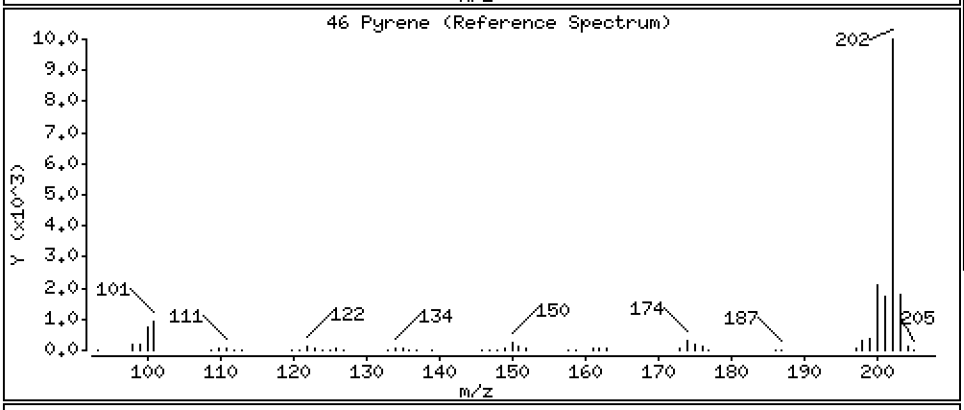
Concentration: 2.527 ug/mL

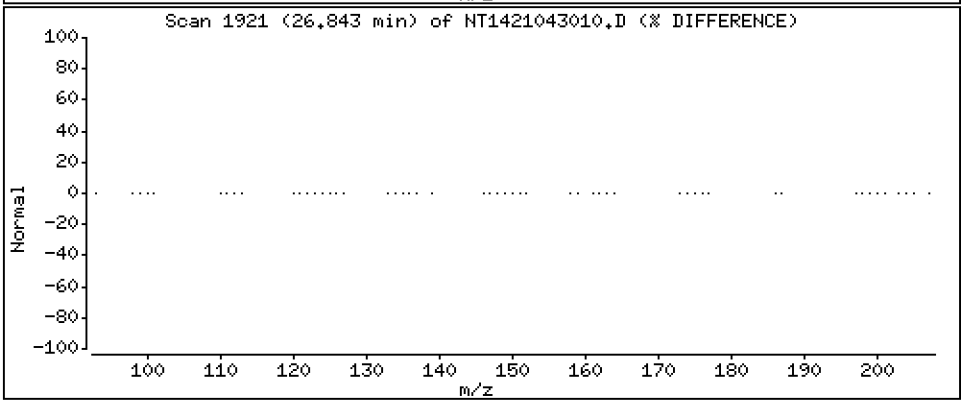












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

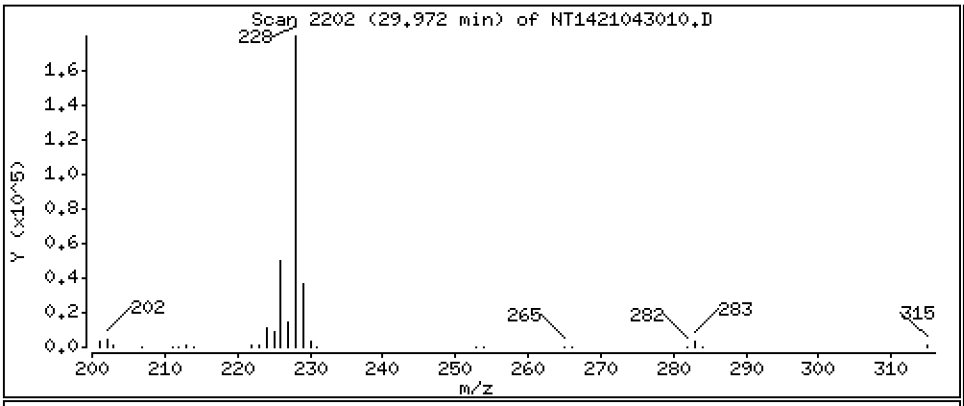
Operator: VTS

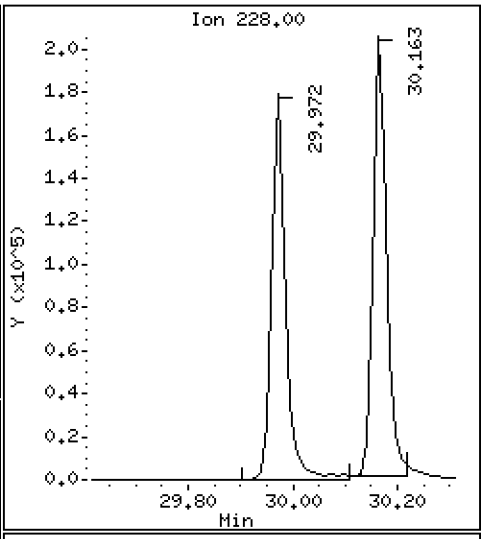
Column phase: Rxi-17Sil MS

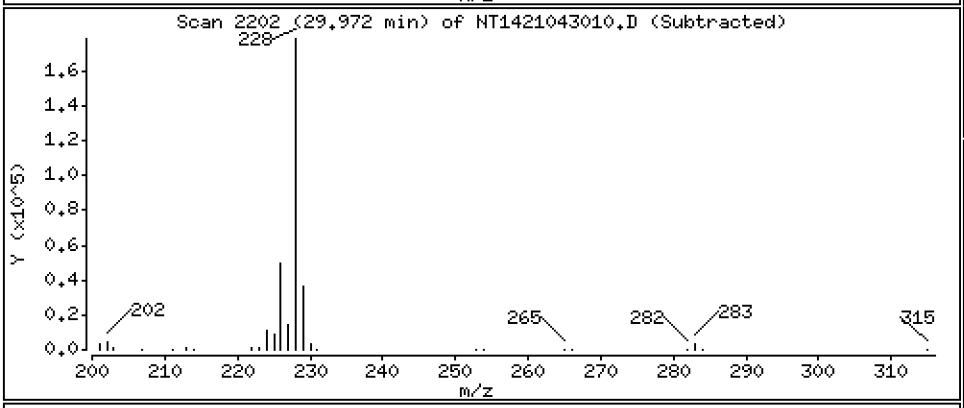
Column diameter: 0.25

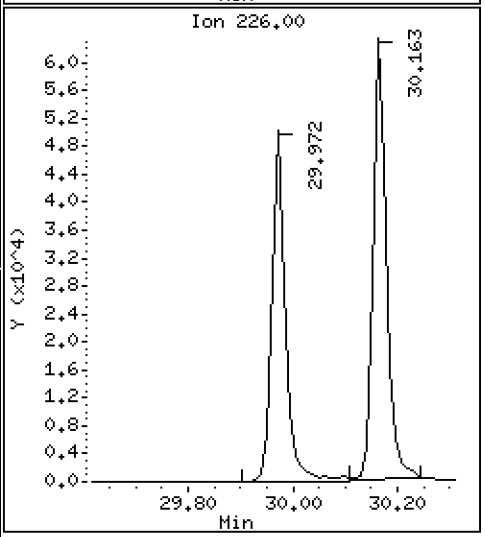
55 Benzo(a)anthracene

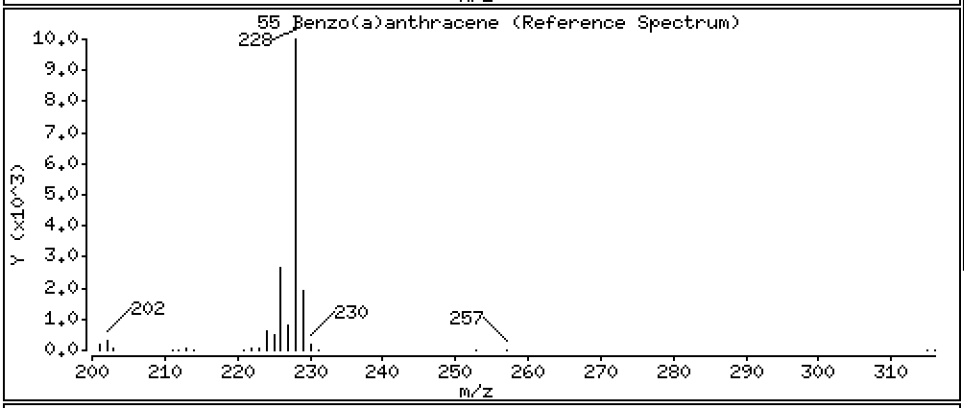
Concentration: 2.278 ug/mL

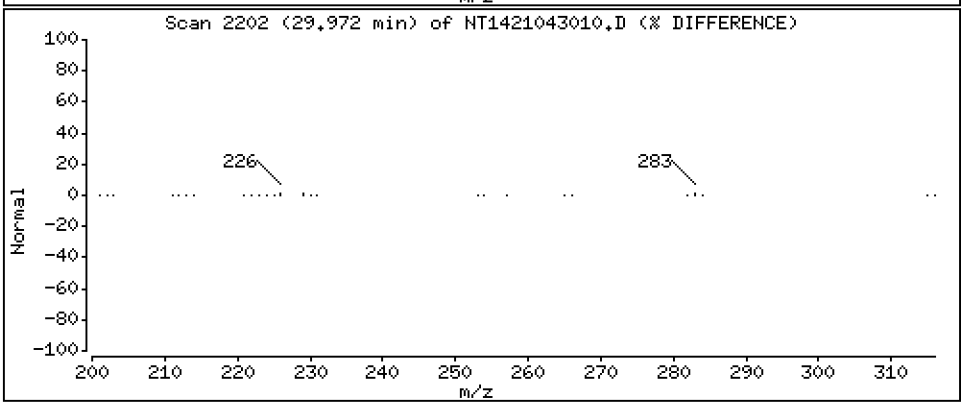












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

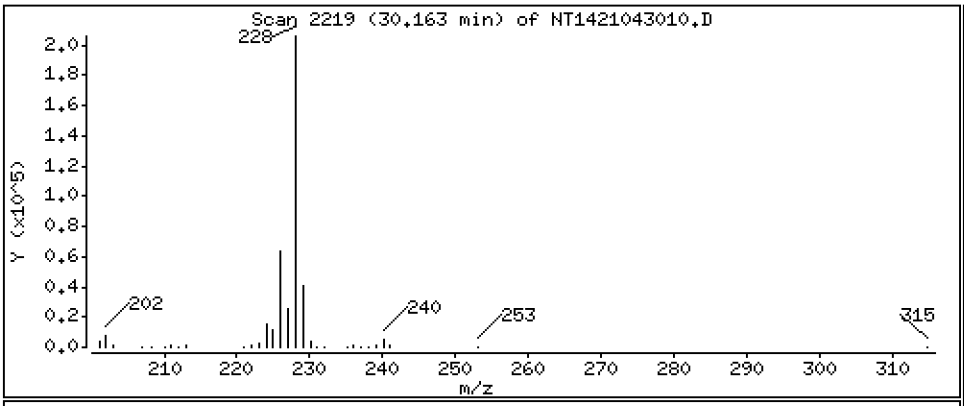
Operator: VTS

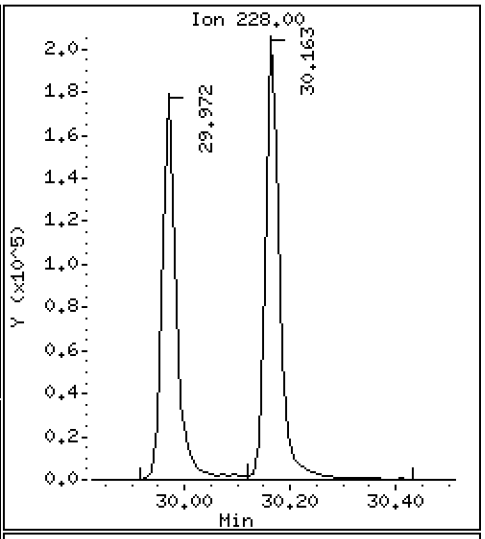
Column phase: Rxi-17Sil MS

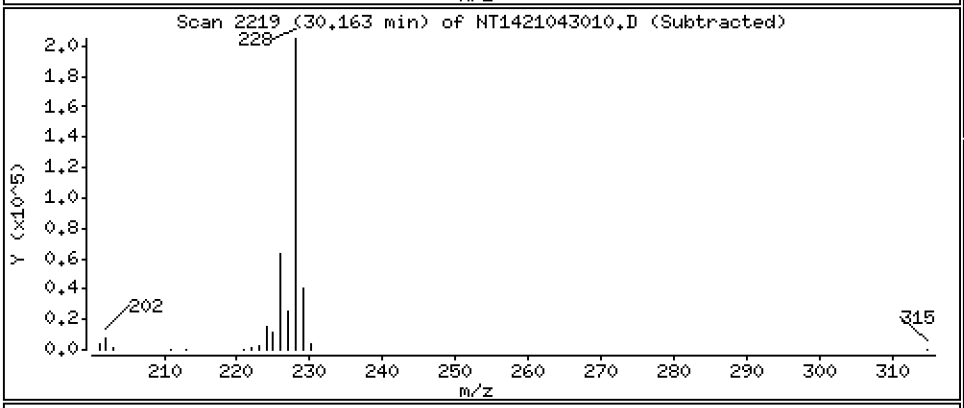
Column diameter: 0.25

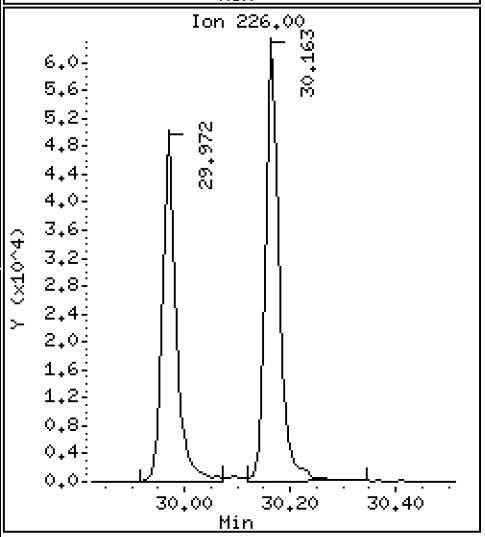
57 Chrysene

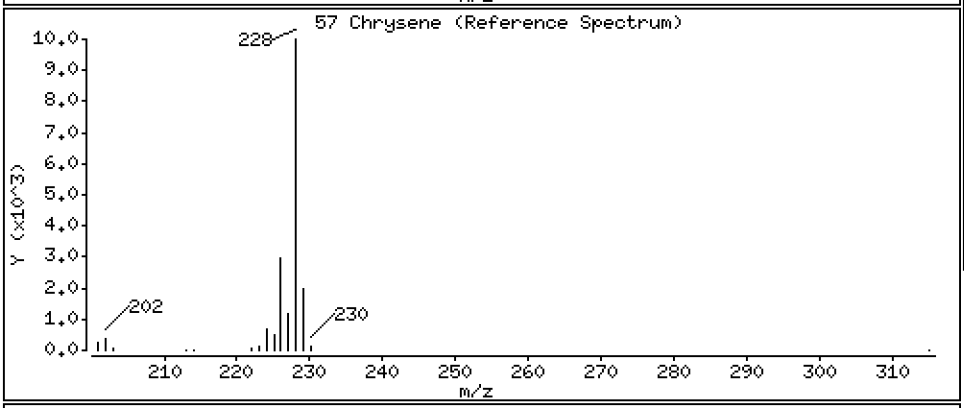
Concentration: 2.574 ug/mL

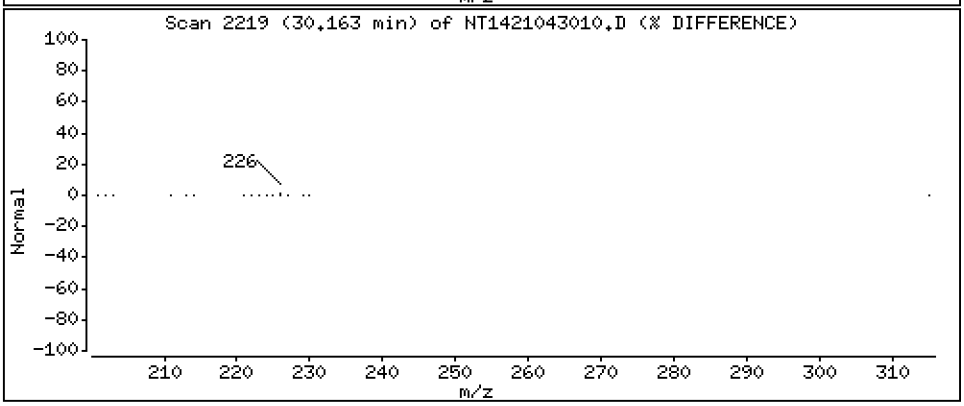












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

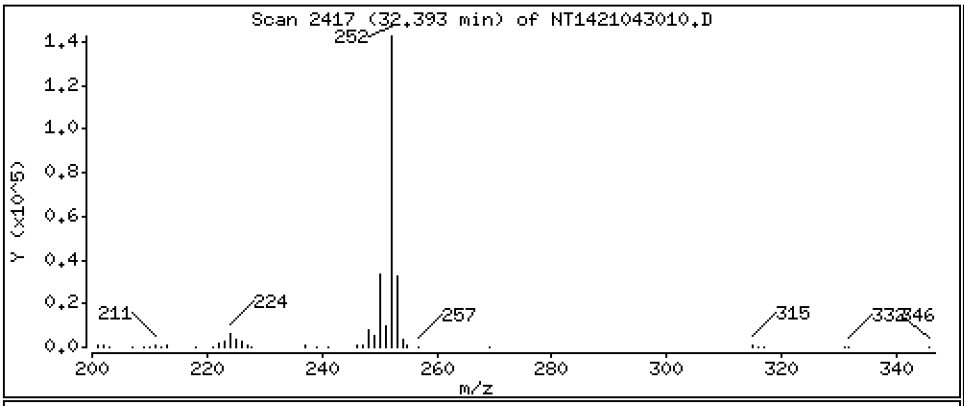
Operator: VTS

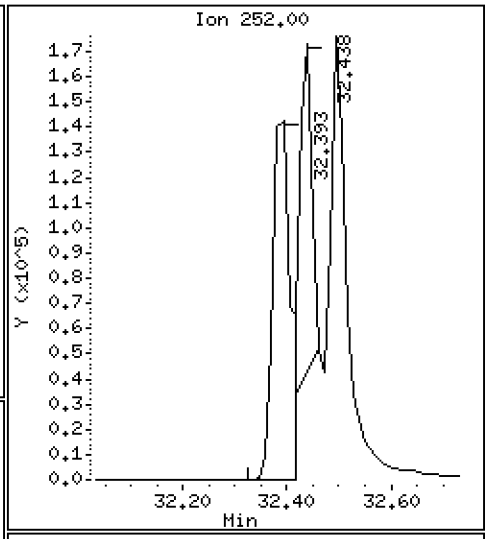
Column phase: Rxi-17Sil MS

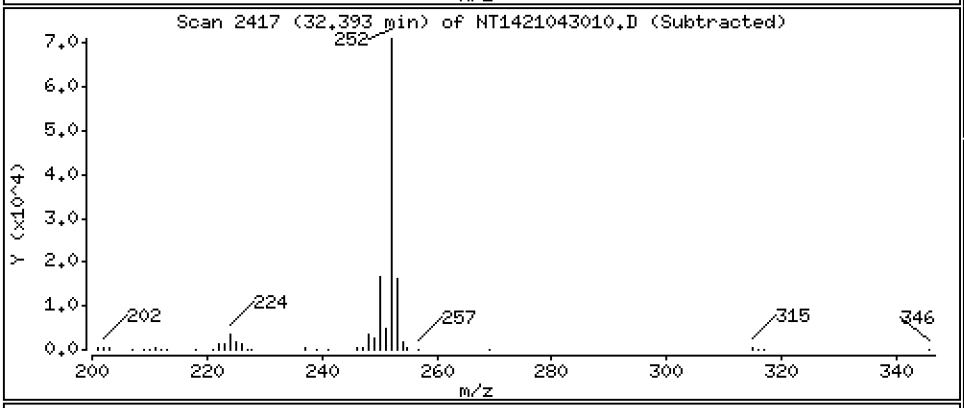
Column diameter: 0.25

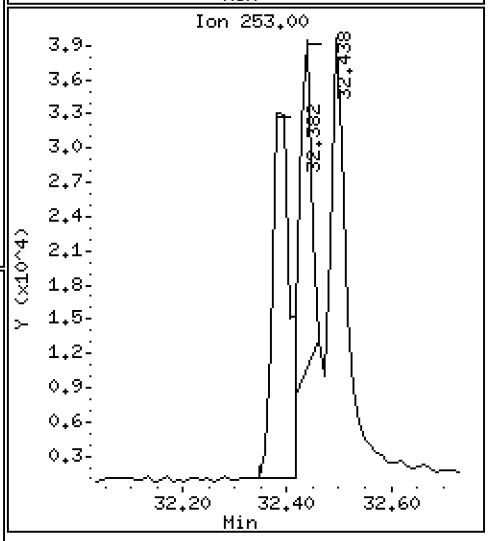
62 Benzo(b)fluoranthene

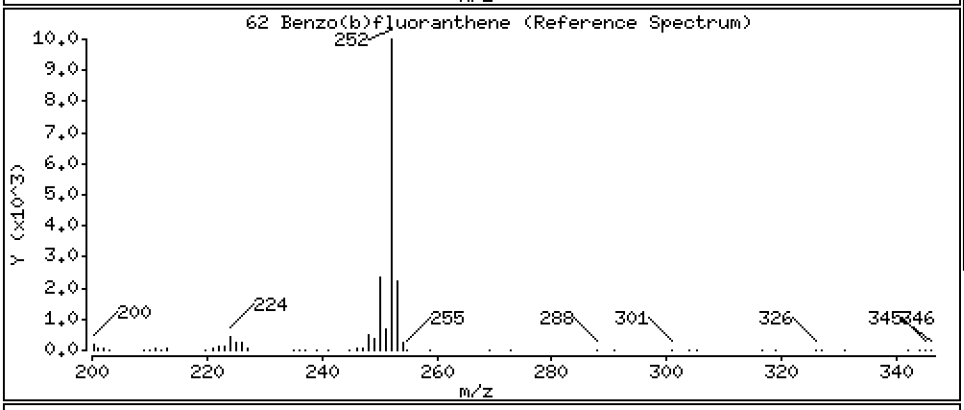
Concentration: 2.326 ug/mL

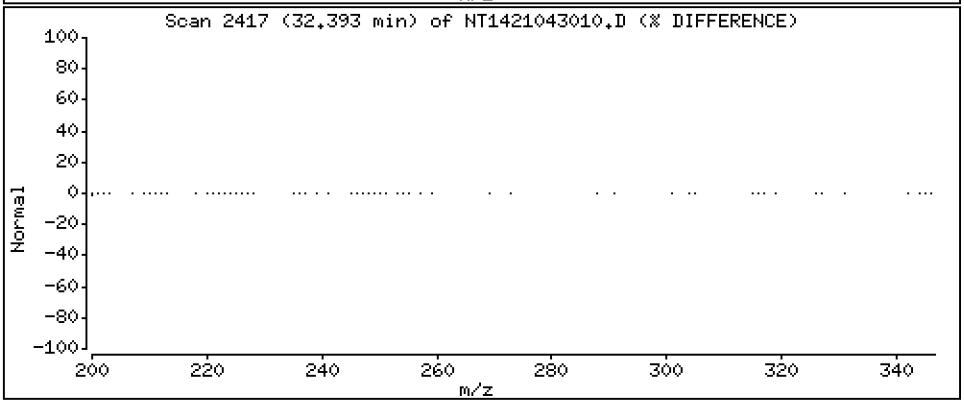












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

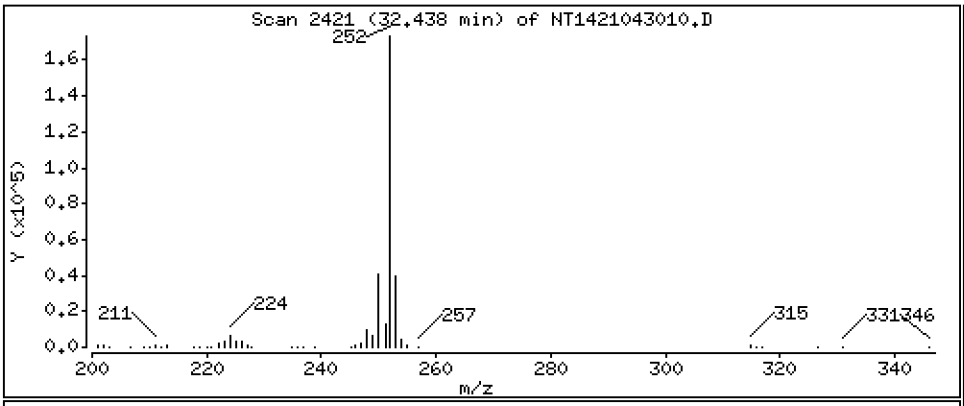
Operator: VTS

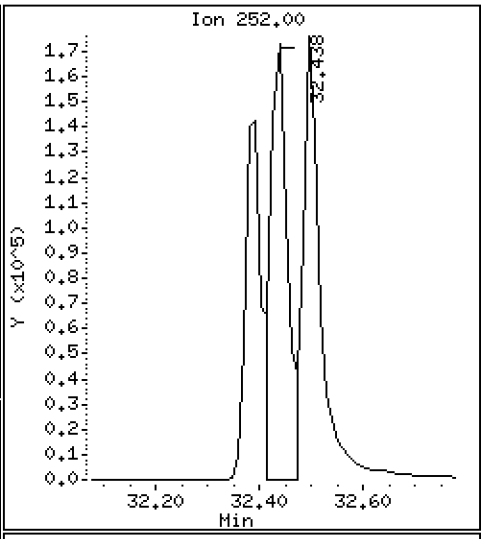
Column phase: Rxi-17Sil MS

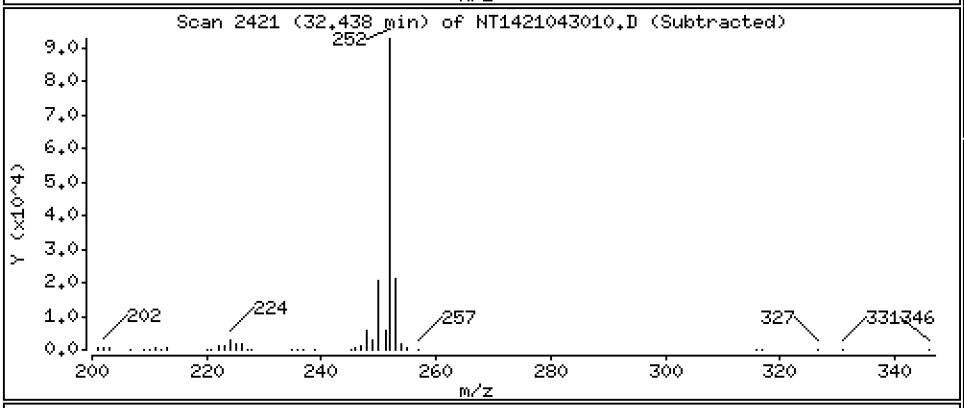
Column diameter: 0.25

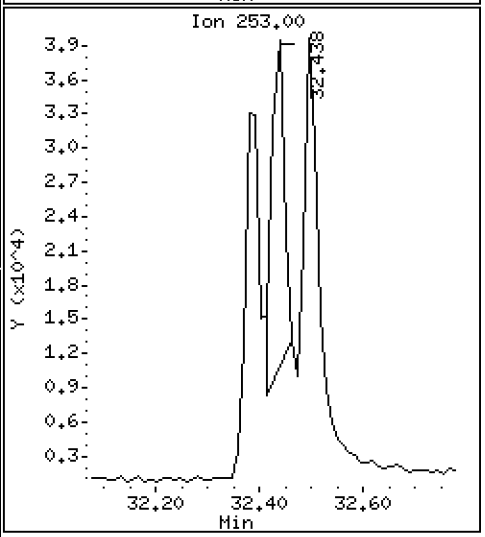
63 Benzo(k)fluoranthene

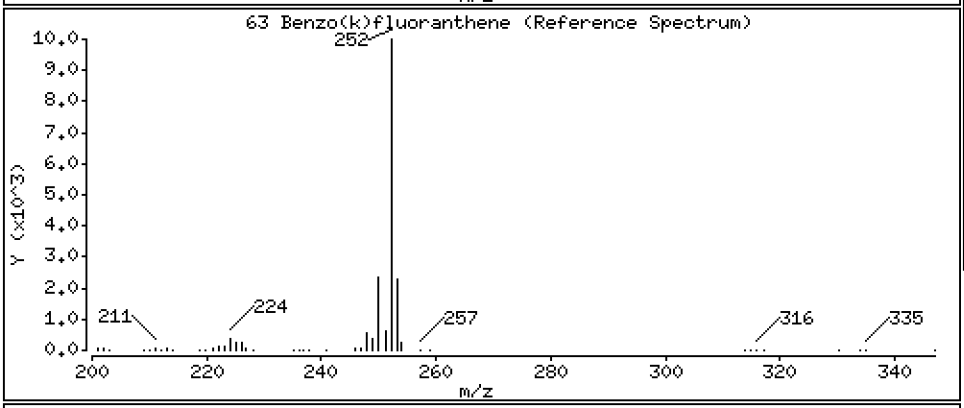
Concentration: 2.304 ug/mL

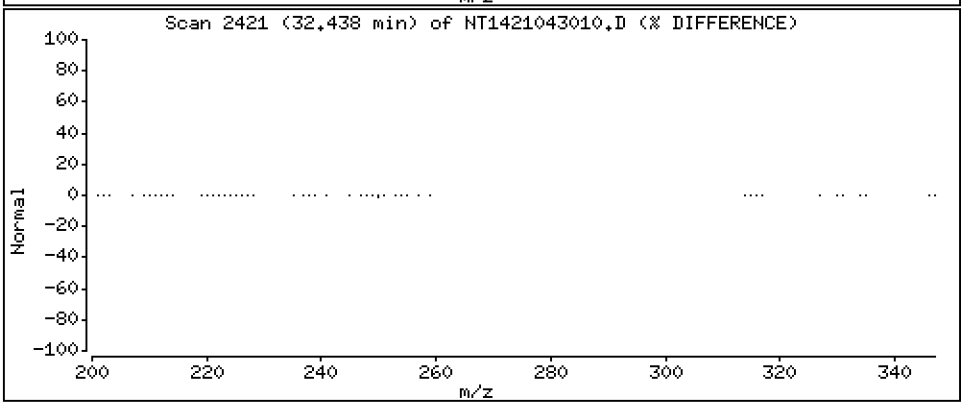












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

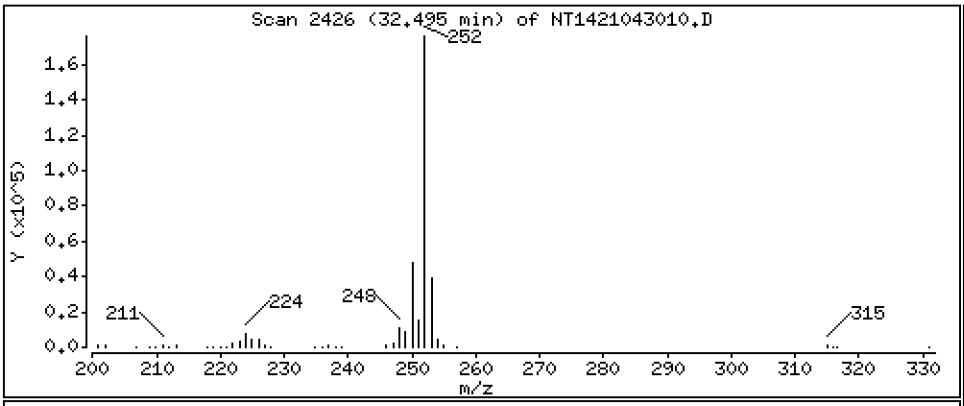
Operator: VTS

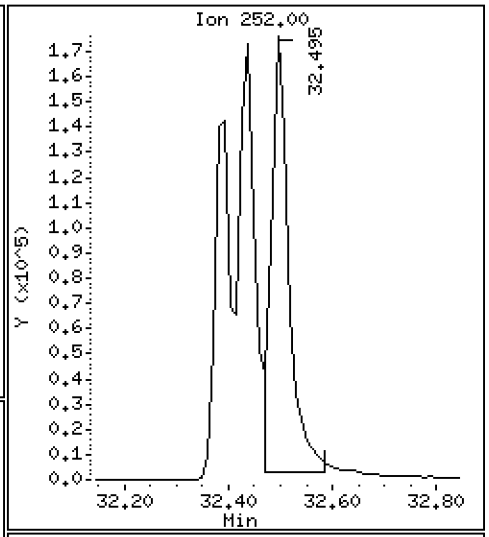
Column phase: Rxi-17Sil MS

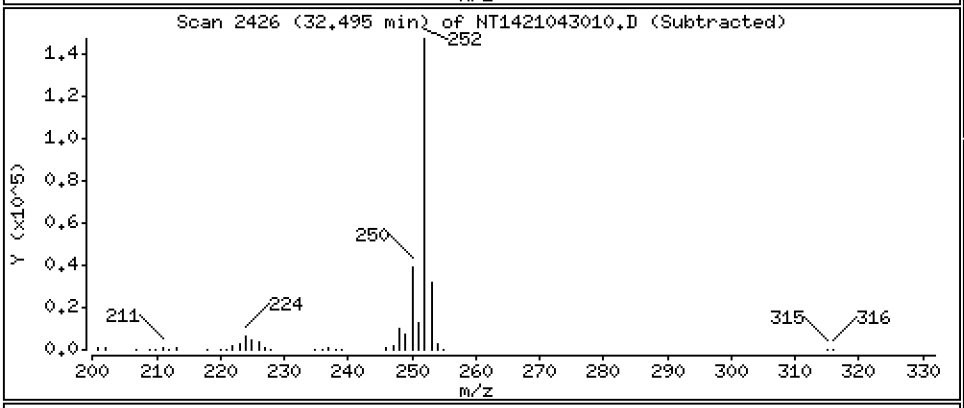
Column diameter: 0.25

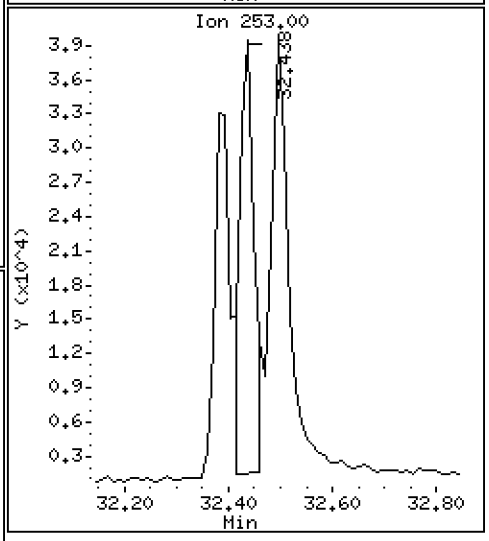
293 Benzo(j)fluoranthene

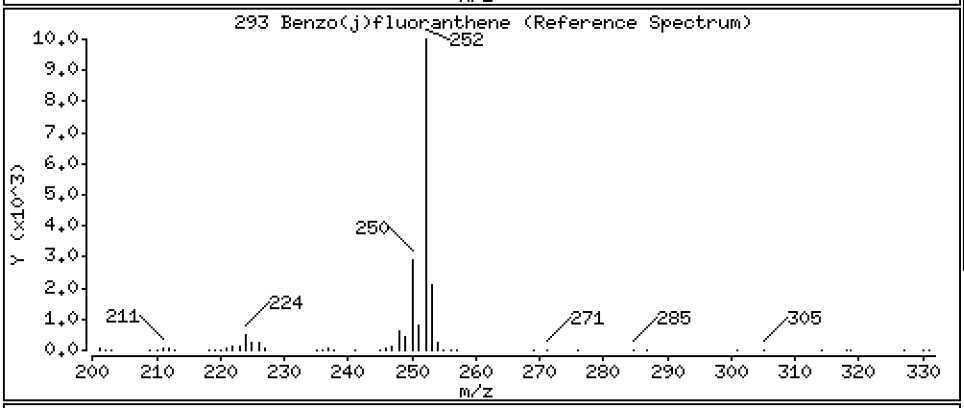
Concentration: 2.516 ug/mL

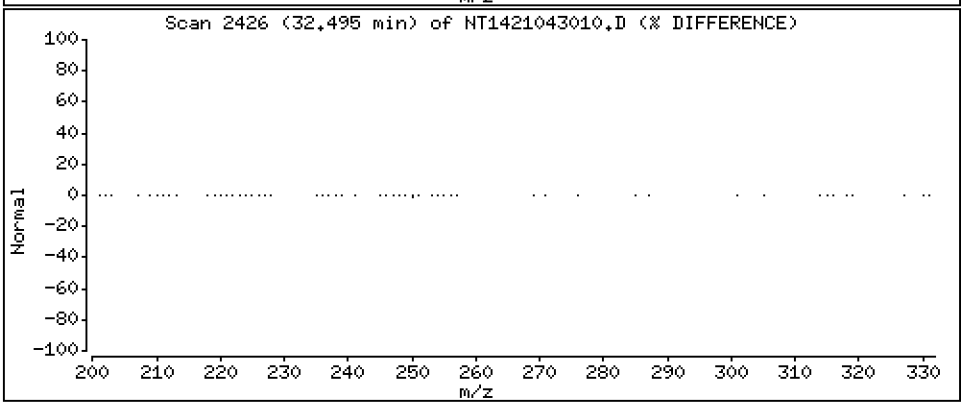












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

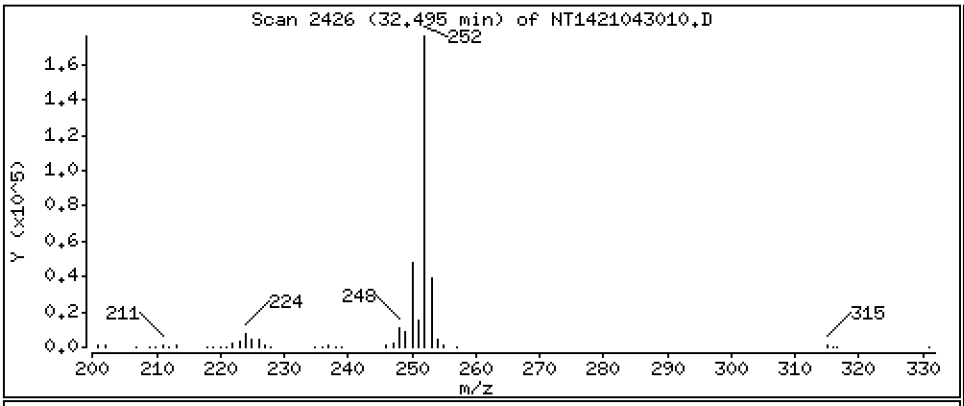
Operator: VTS

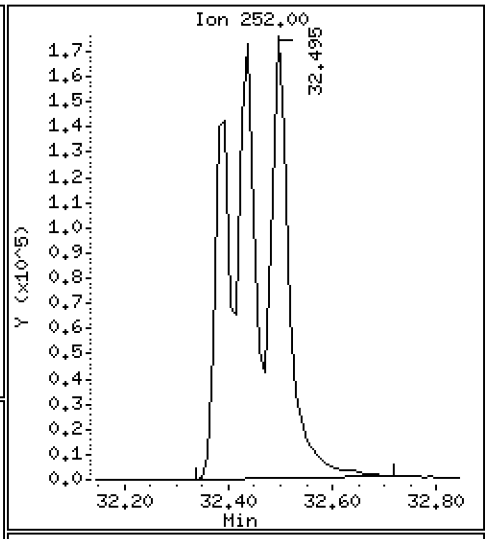
Column phase: Rxi-17Sil MS

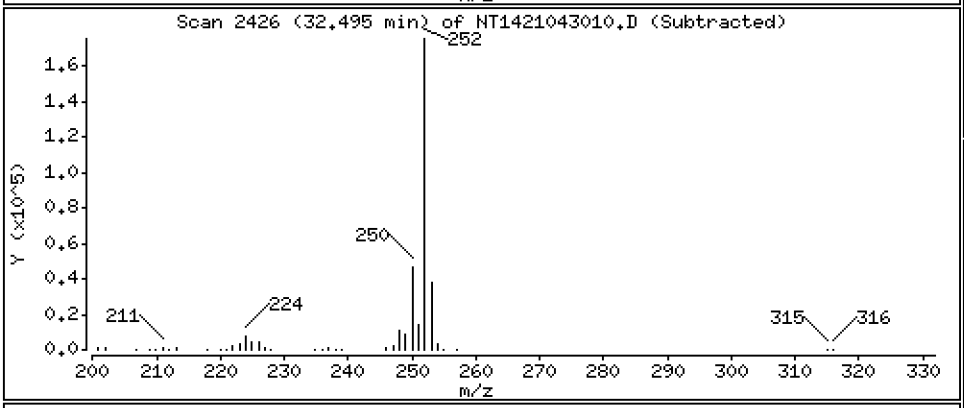
Column diameter: 0.25

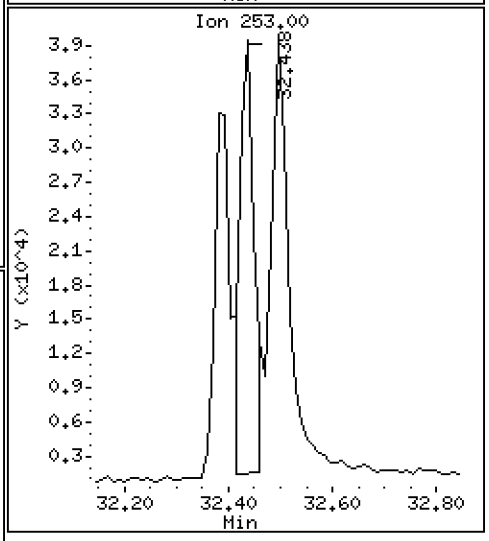
246 Total Benzofluoranthenes

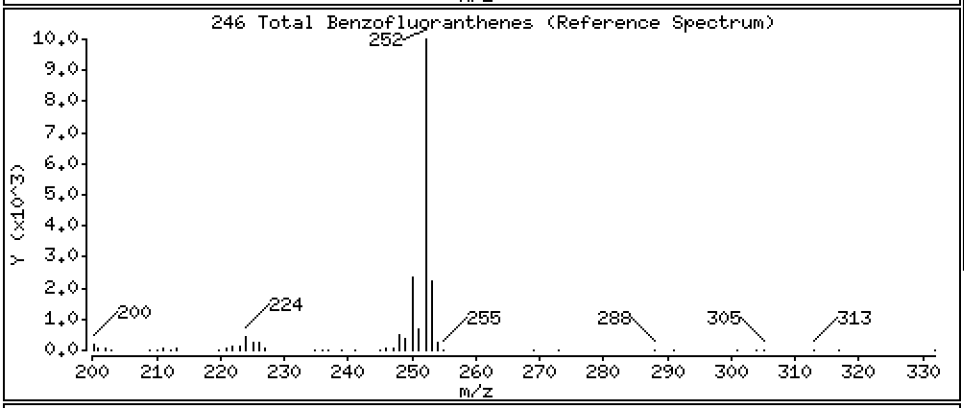
Concentration: 6.960 ug/mL

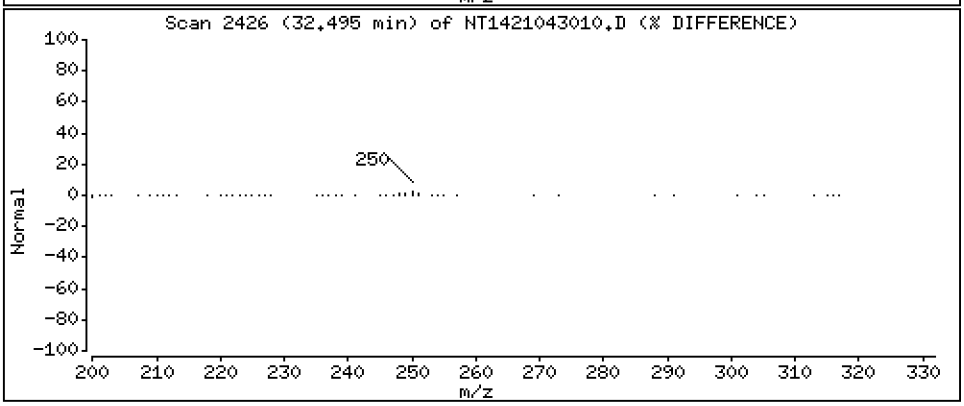












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

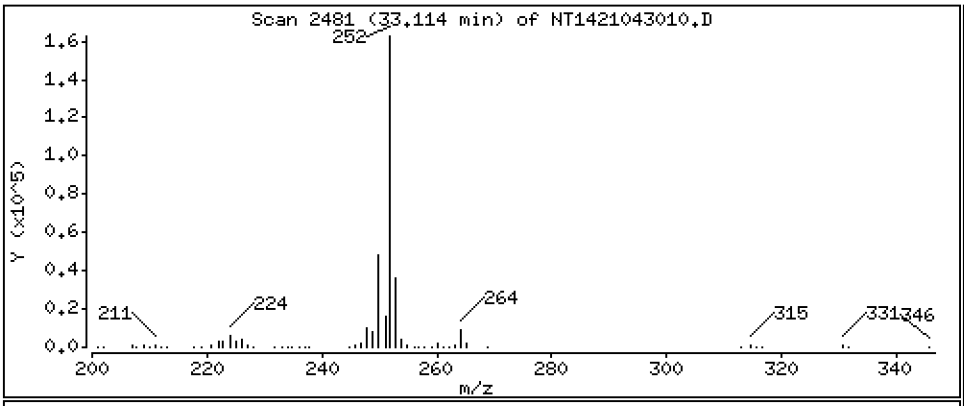
Operator: VTS

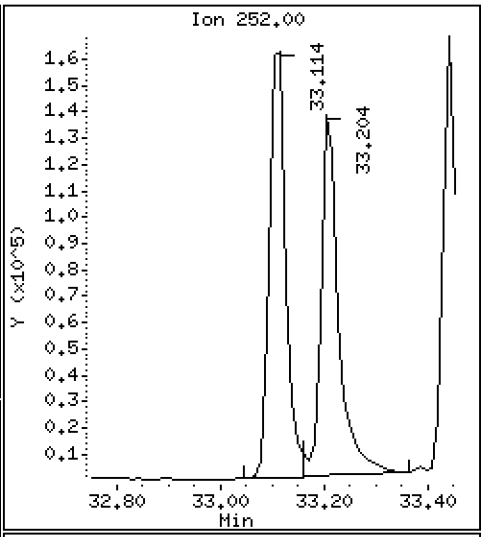
Column phase: Rxi-17Sil MS

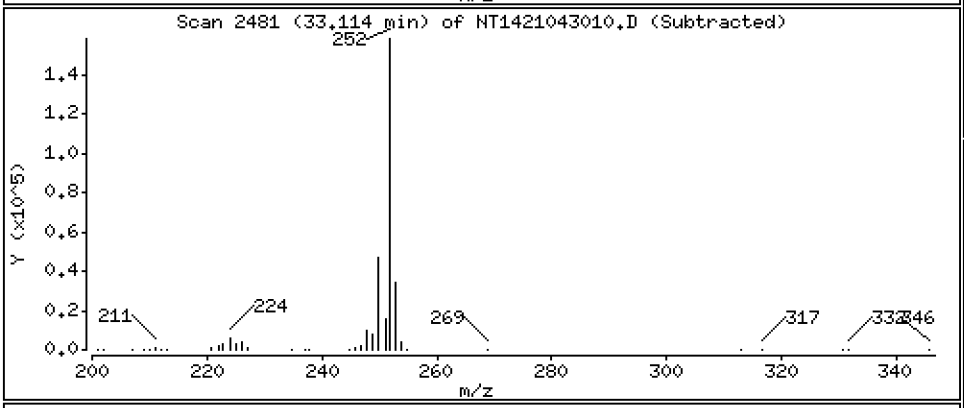
Column diameter: 0.25

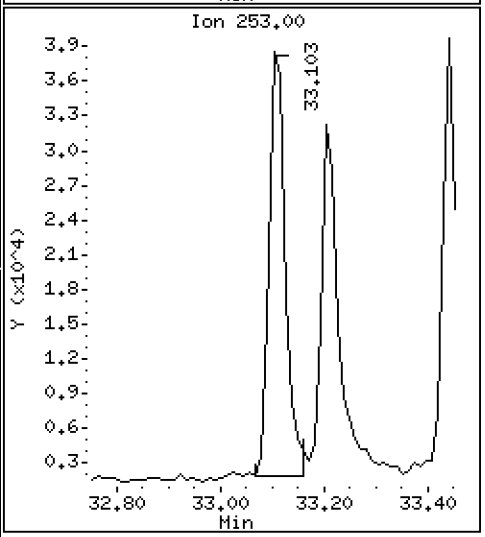
64 Benzo(e)pyrene

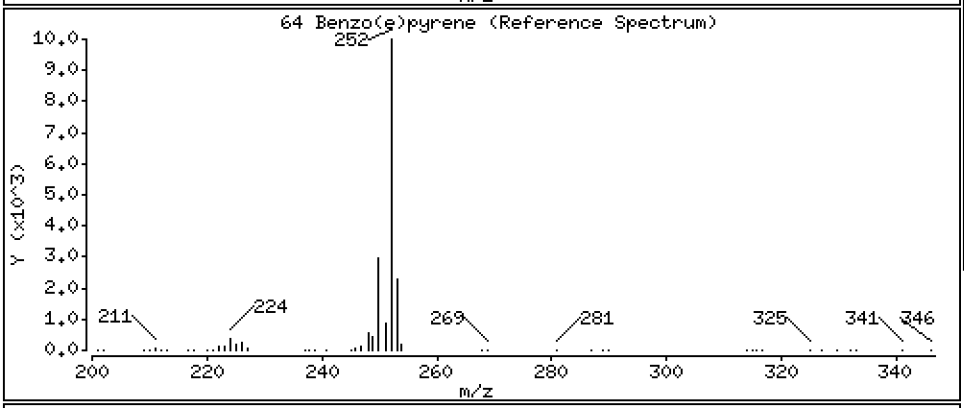
Concentration: 2.454 ug/mL

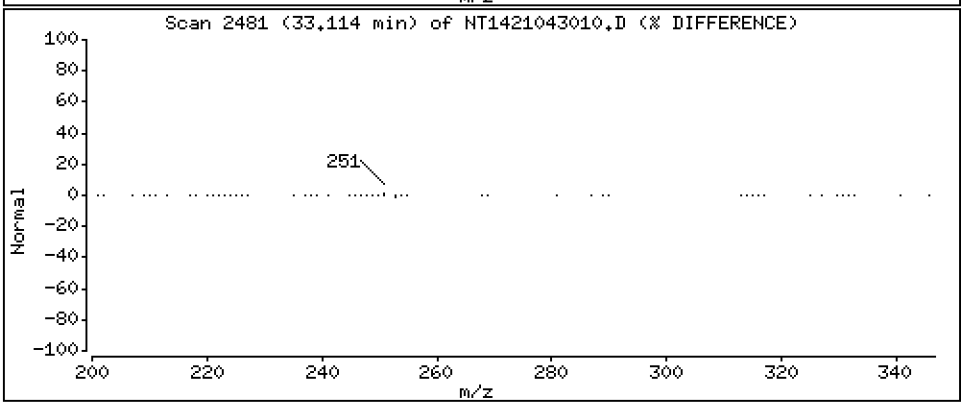












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

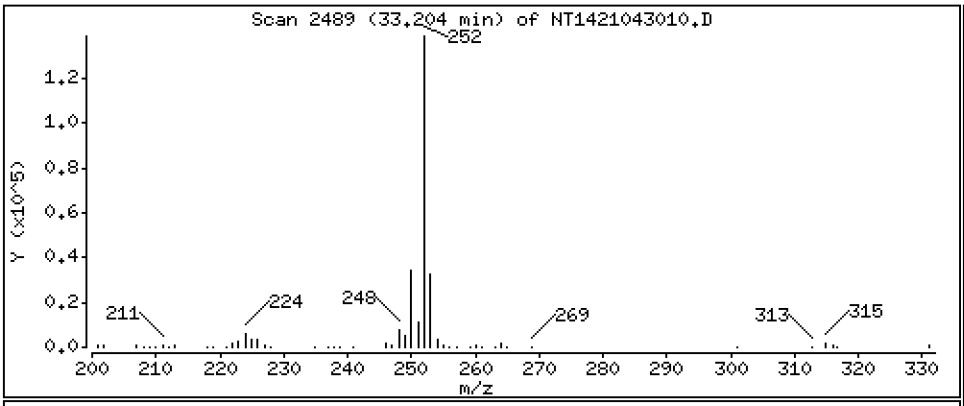
Operator: VTS

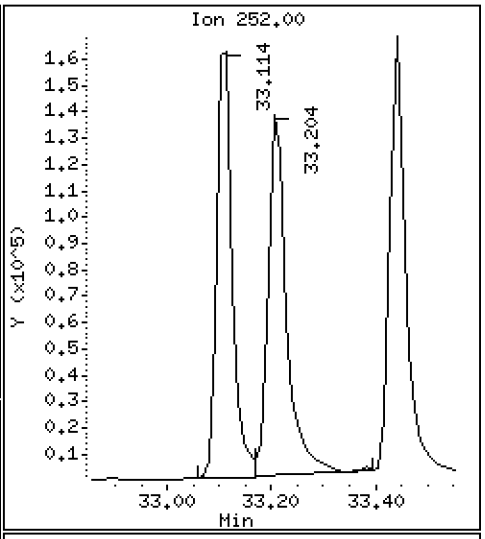
Column phase: Rxi-17Sil MS

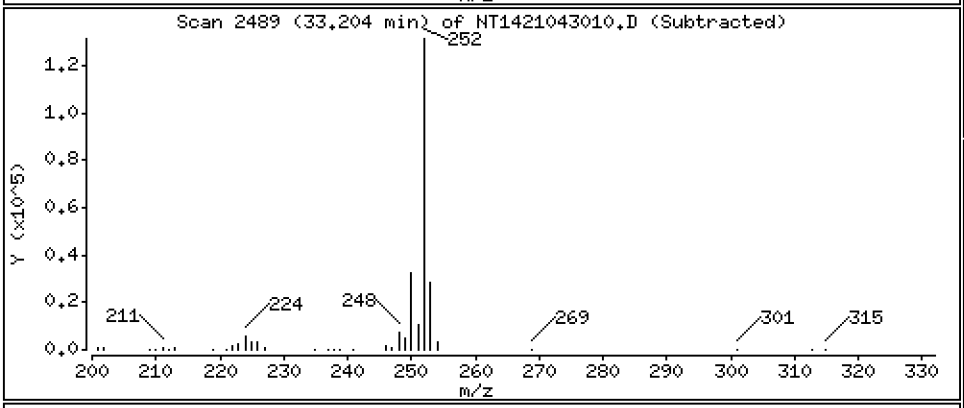
Column diameter: 0.25

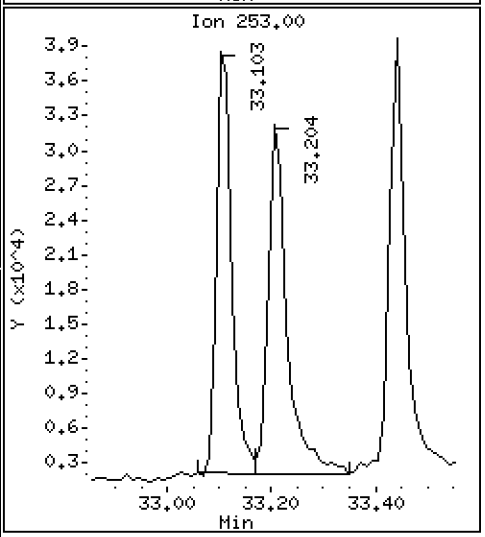
66 Benzo(a)pyrene

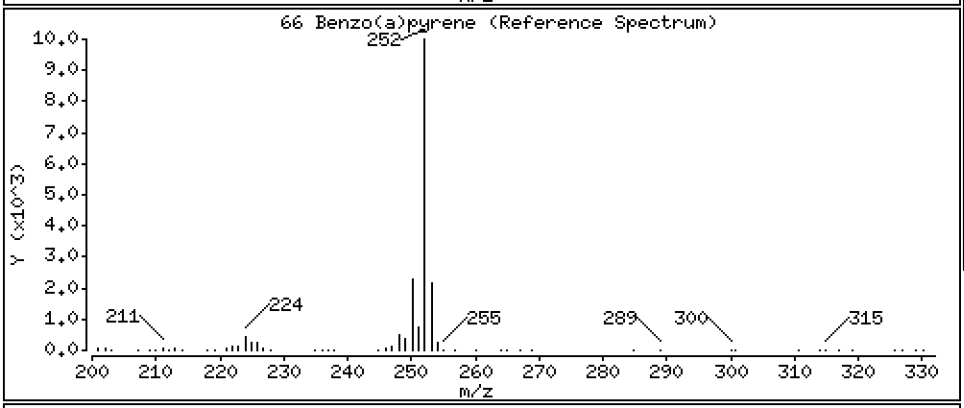
Concentration: 2.211 ug/mL

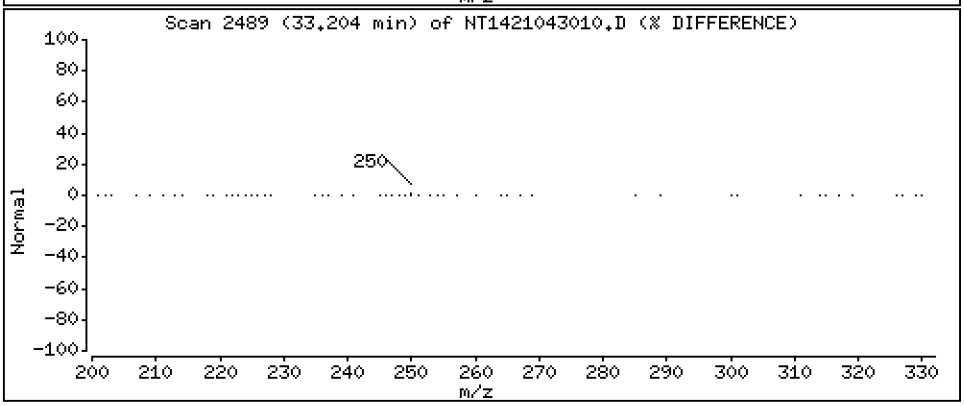












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

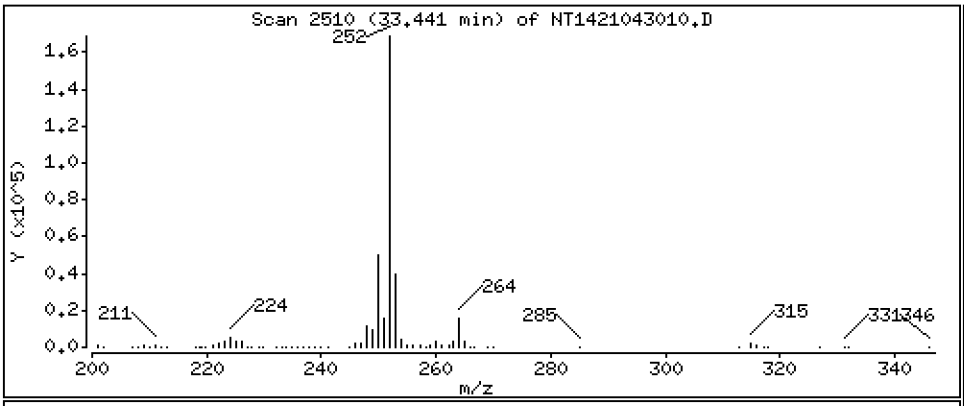
Operator: VTS

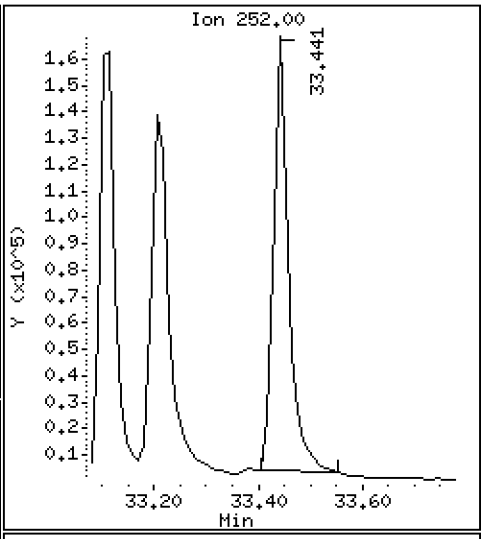
Column phase: Rxi-17Sil MS

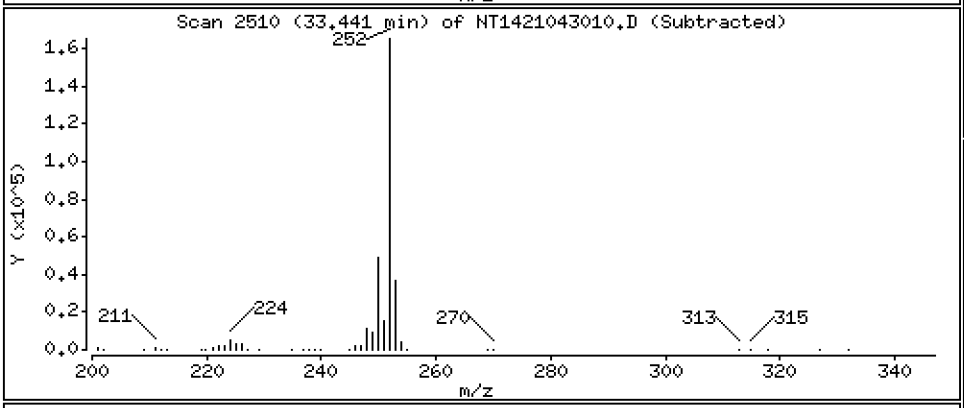
Column diameter: 0.25

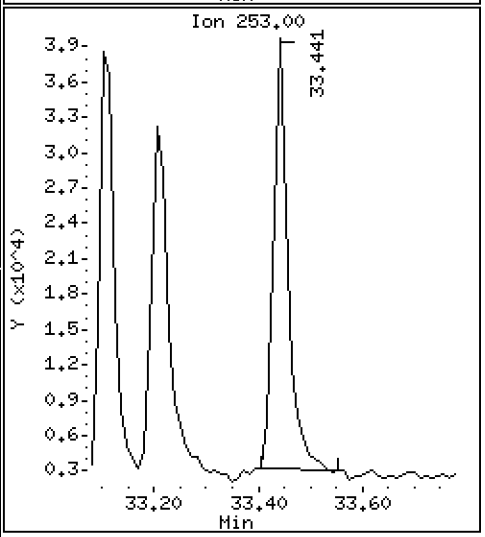
68 Perylene

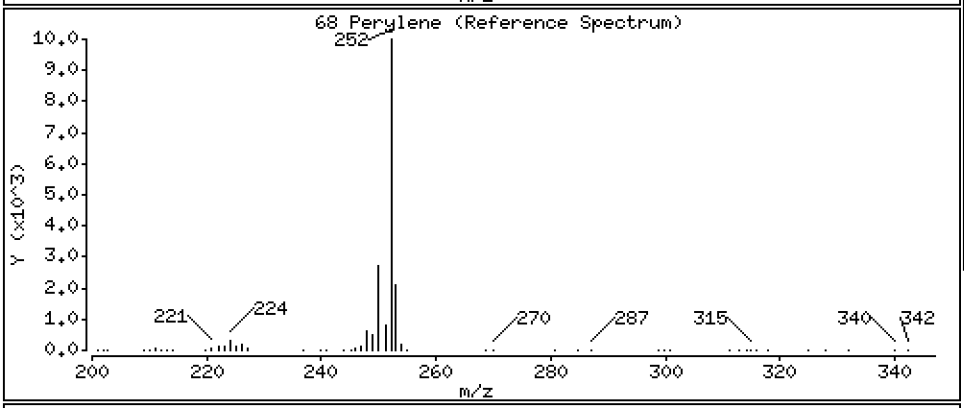
Concentration: 2.415 ug/mL

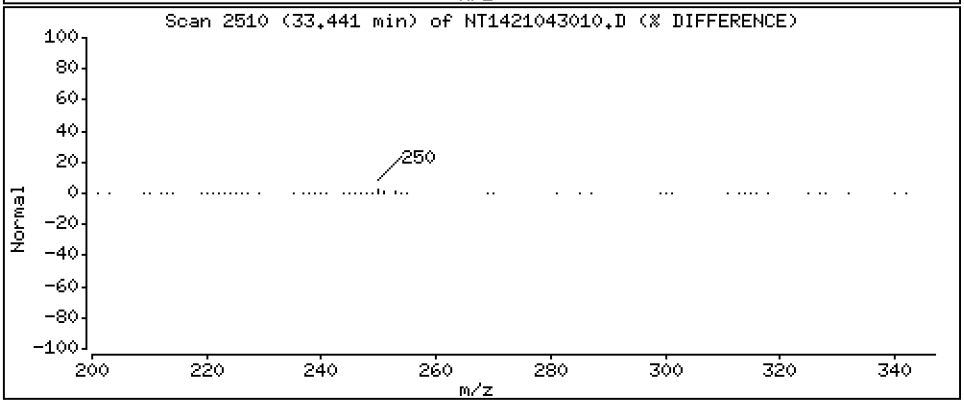












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

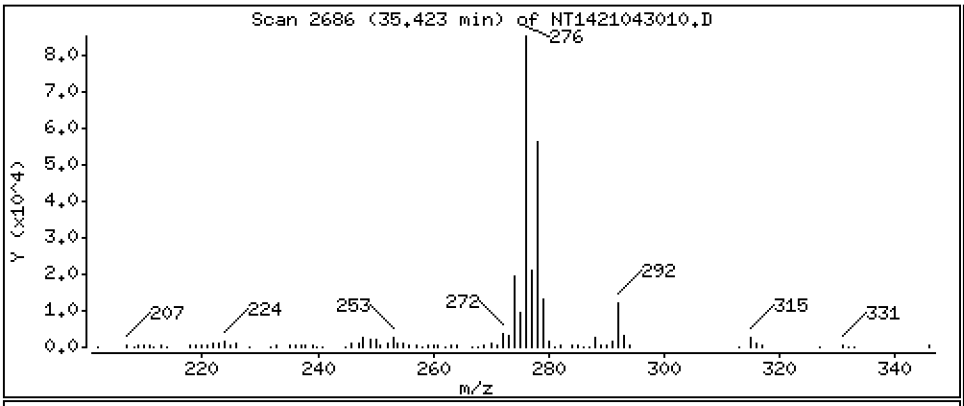
Operator: VTS

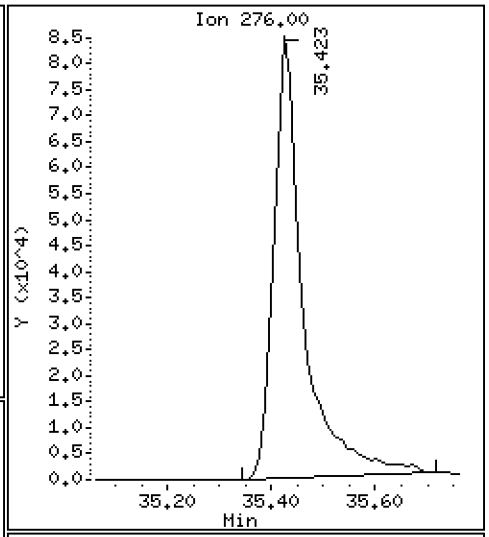
Column phase: Rxi-17Sil MS

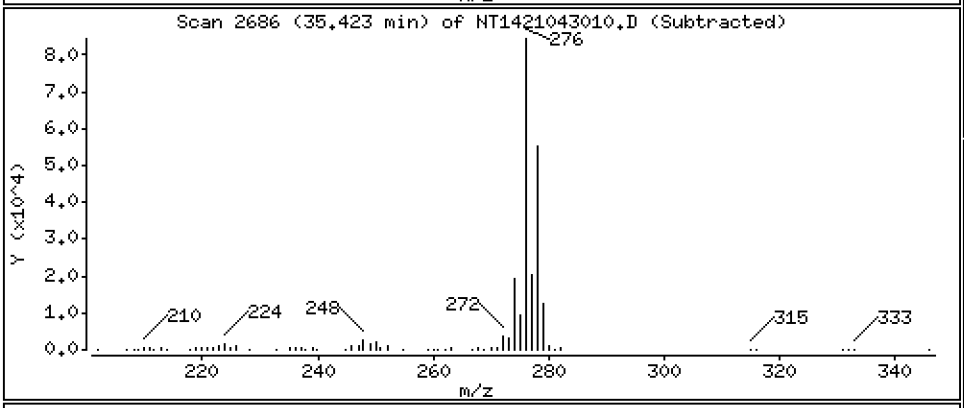
Column diameter: 0.25

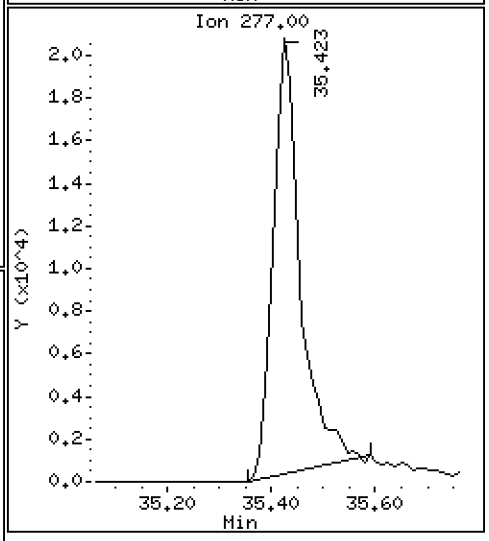
69 Indeno(1,2,3-cd)pyrene

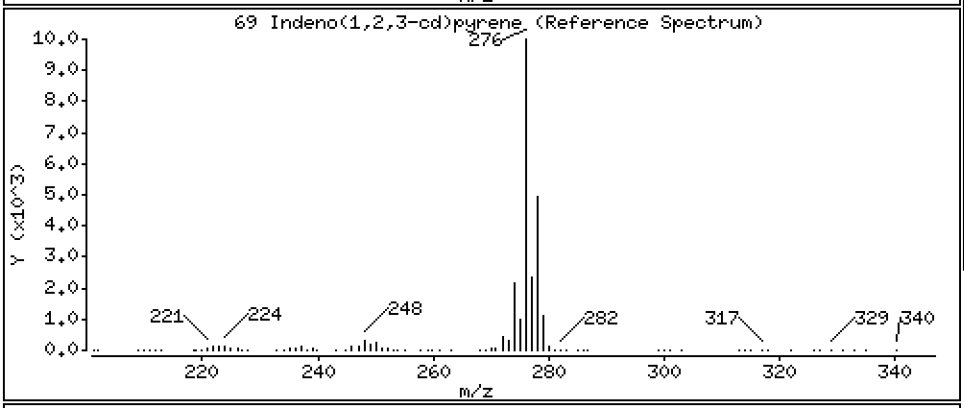
Concentration: 2.236 ug/mL

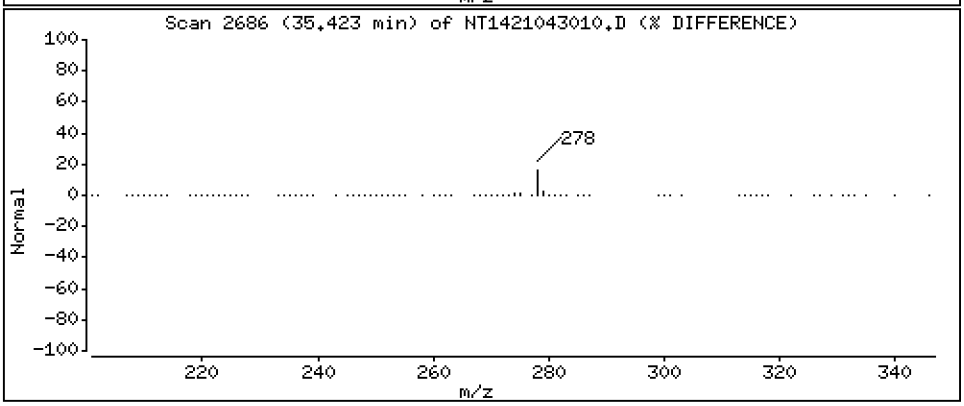












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

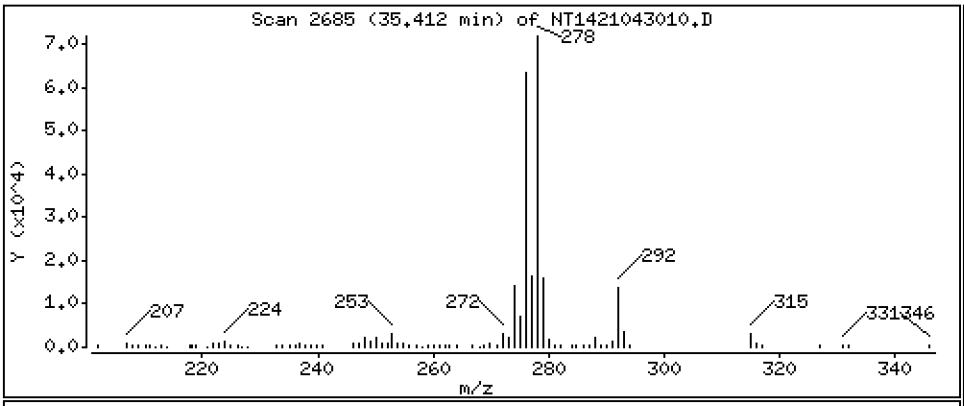
Operator: VTS

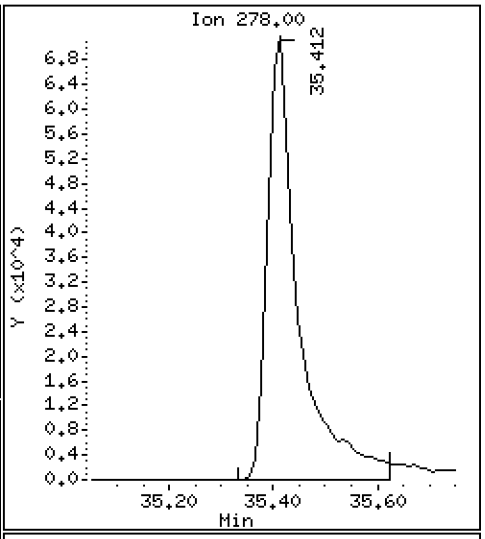
Column phase: Rxi-17Sil MS

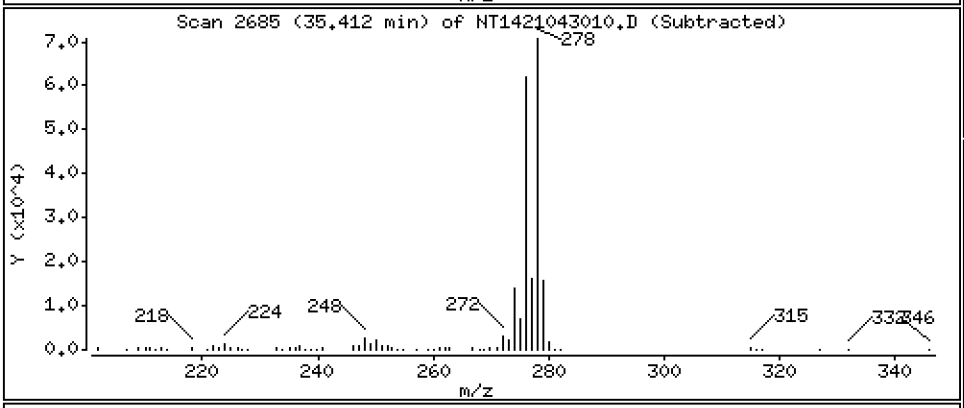
Column diameter: 0.25

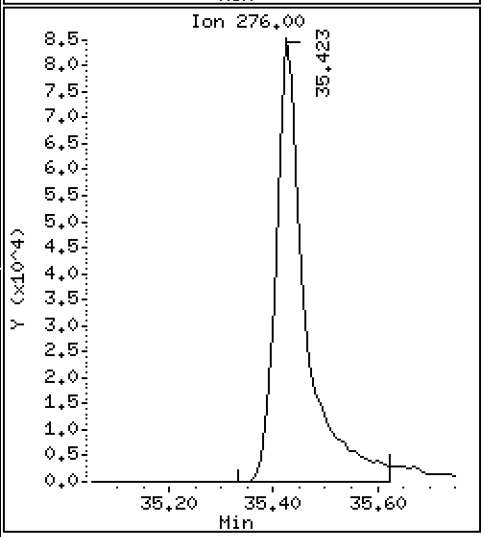
70 Dibenzo(a,h)anthracene

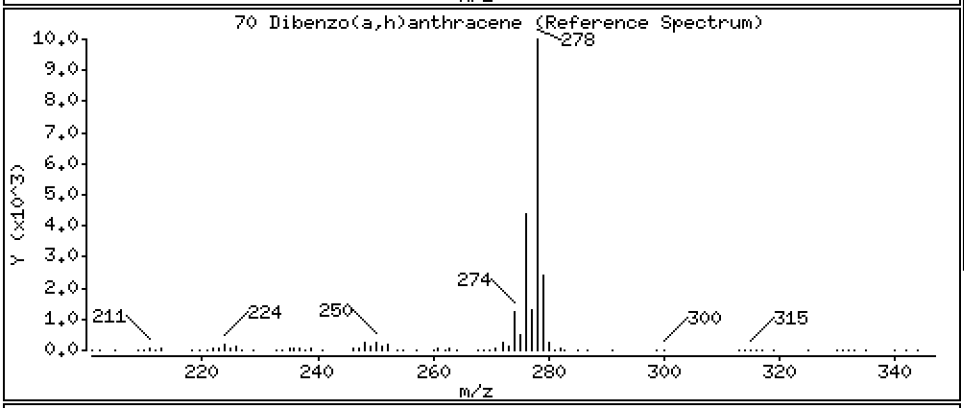
Concentration: 2.291 ug/mL

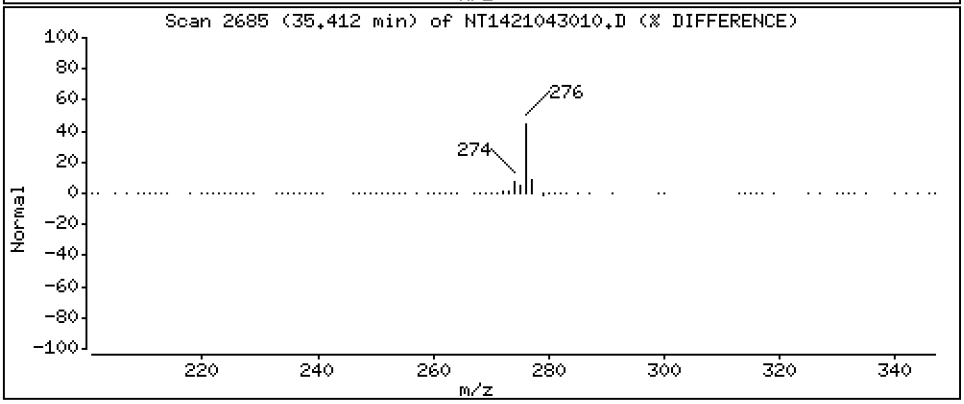












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

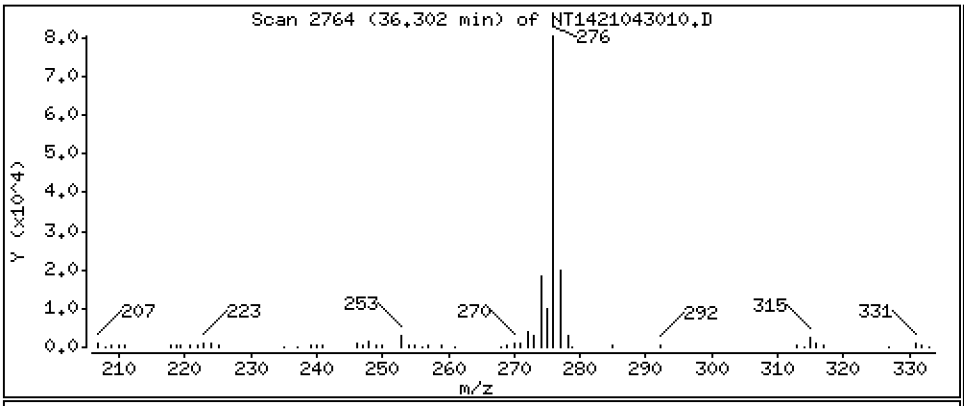
Operator: VTS

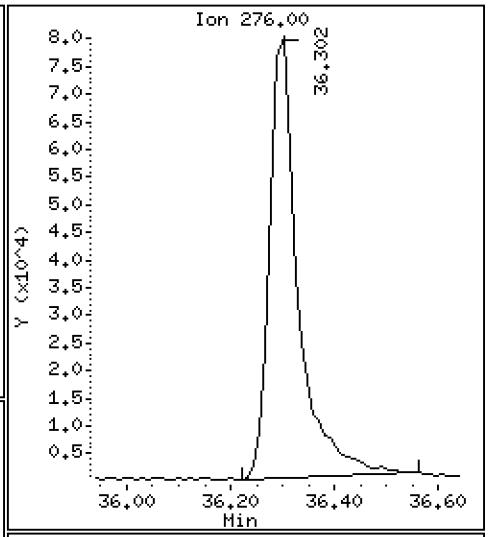
Column phase: Rxi-17Sil MS

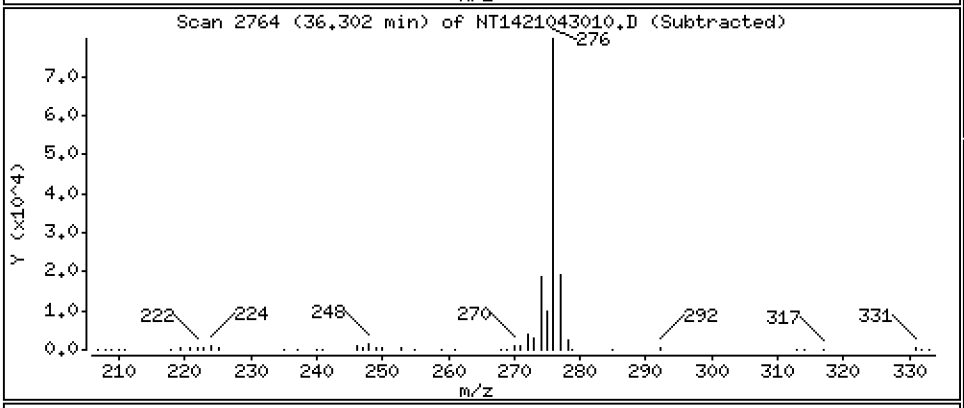
Column diameter: 0.25

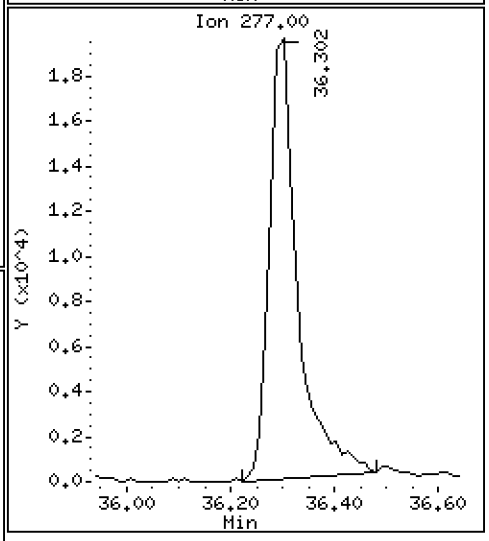
74 Benzo(g,h,i)perylene

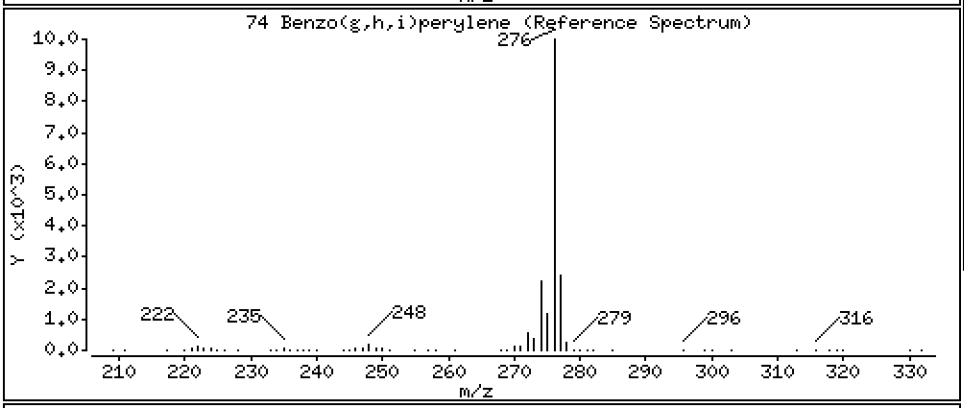
Concentration: 2.352 ug/mL

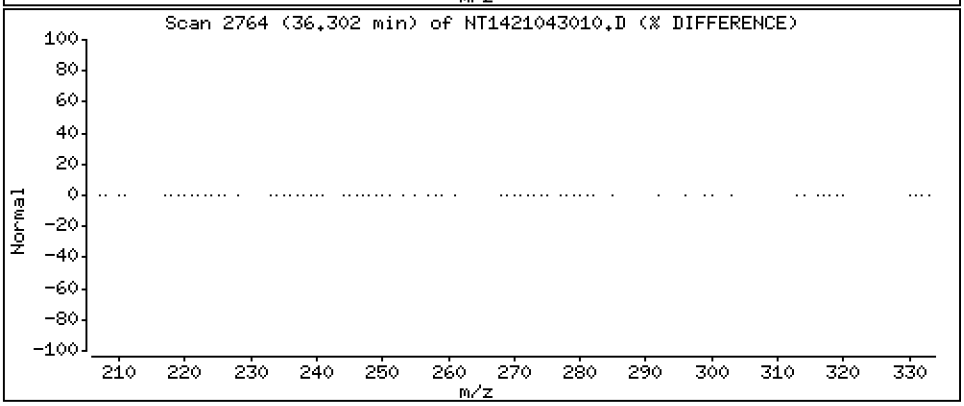












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	74342	2.84314	2.843
	2 cis-Decalin	138	8.155	8.165	(0.434)	52523	2.90966	2.910
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	604964	2.98636	2.986(R)
	7 Naphthalene	128	11.836	11.846	(0.630)	573337	2.78250	2.783
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	456850	2.78683	2.787
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	312811	2.84483	2.845
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	293934	2.82127	2.821
	18 Biphenyl	154	15.317	15.317	(0.815)	435061	2.76462	2.765
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	305582	2.82199	2.822
	20 Acenaphthylene	152	16.955	16.955	(0.903)	492364	2.88930	2.889
$	21 Acenaphthene-d10	164	17.252	17.241	(0.918)	298420	3.01695	3.017(R)
	22 Acenaphthene	153	17.362	17.361	(0.924)	329675	3.01019	3.010
	23 Dibenzofuran	168	17.735	17.735	(0.944)	459290	2.76760	2.768
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	277803	2.92320	2.923
*	25 Fluorene-d10	176	18.783	18.781	(1.000)	351020	2.00000	
	26 Fluorene	166	18.885	18.883	(1.005)	342973	2.84375	2.844
	30 Dibenzothiophene	184	21.796	21.794	(1.160)	423593	2.78230	2.782
$	35 Phenanthrene-d10	188	22.104	22.102	(0.995)	446008	2.66948	2.669(R)
	36 Phenanthrene	178	22.192	22.190	(0.999)	460265	2.46754	2.468
*	250 Anthracene-d10	188	22.225	22.223	(1.000)	309177	2.00000	
	37 Anthracene	178	22.291	22.289	(1.003)	428535	2.49230	2.492
	42 Carbazole	167	23.566	23.565	(1.060)	338612	2.34287	2.343
	43 1-Methylphenanthrene	192	24.017	24.015	(1.081)	293776	2.59400	2.594
	44 Fluoranthene	202	25.996	25.994	(1.170)	436345	2.63403	2.634
	46 Pyrene	202	26.843	26.841	(1.208)	433716	2.52654	2.527
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.964	(0.907)	342259	2.27793	2.278
$	56 Chrysene-d12	240	30.095	30.087	(0.911)	337659	2.82827	2.828(RM)
	57 Chrysene	228	30.163	30.166	(0.913)	394981	2.57401	2.574
	62 Benzo(b)fluoranthene	252	32.393	32.386	(0.980)	324344	2.32564	2.326
	63 Benzo(k)fluoranthene	252	32.438	32.430	(0.982)	391530	2.30379	2.304(M)
	293 Benzo(j)fluoranthene	252	32.494	32.498	(0.983)	393189	2.51567	2.516(M)
	246 Total Benzofluoranthenes	252	32.494	32.497	(0.983)	1066161	6.96004	6.960(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505(RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415(M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 14:41

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

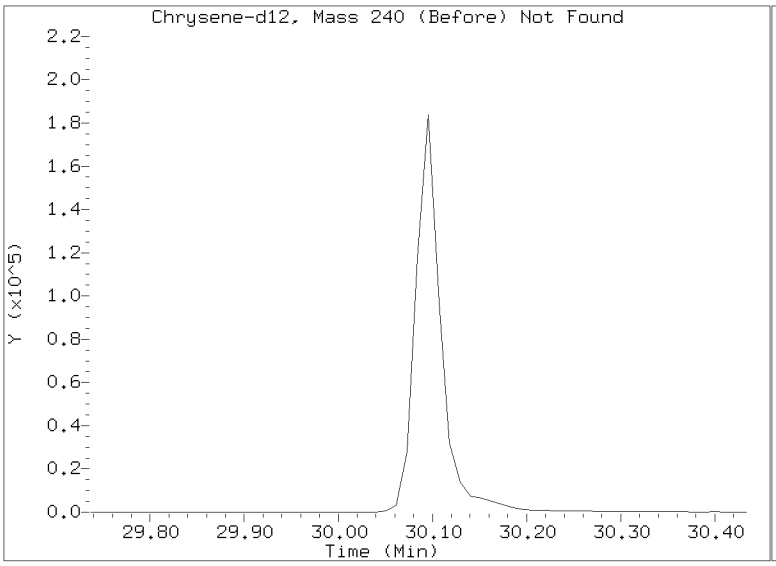
RRT check based on Ccal File: NT1421043009.D

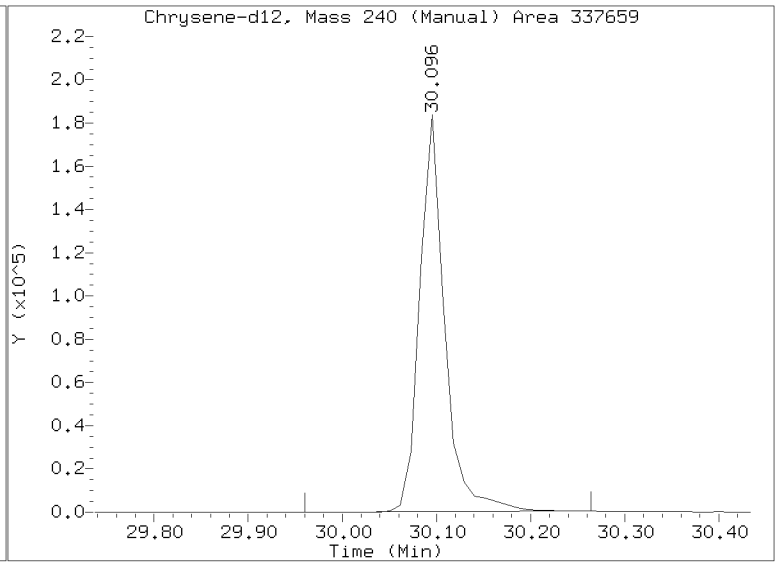
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

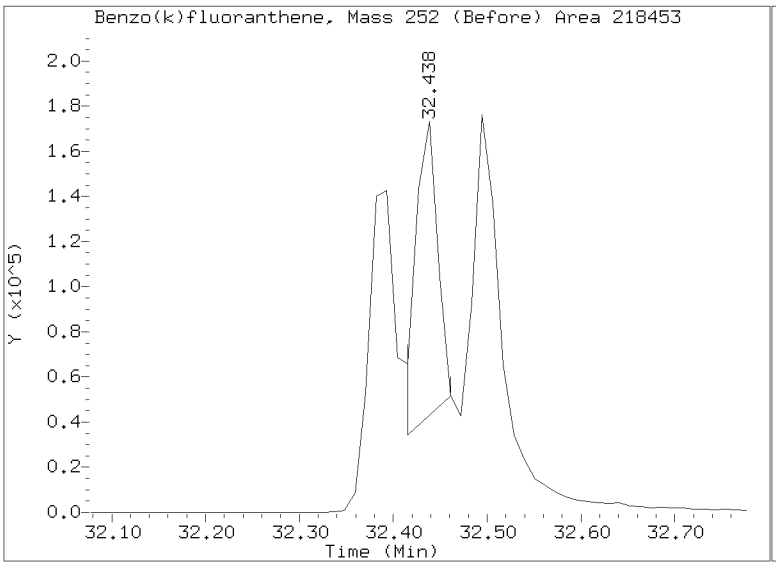
* Only compounds listed in the work order have been verified by the analyst *

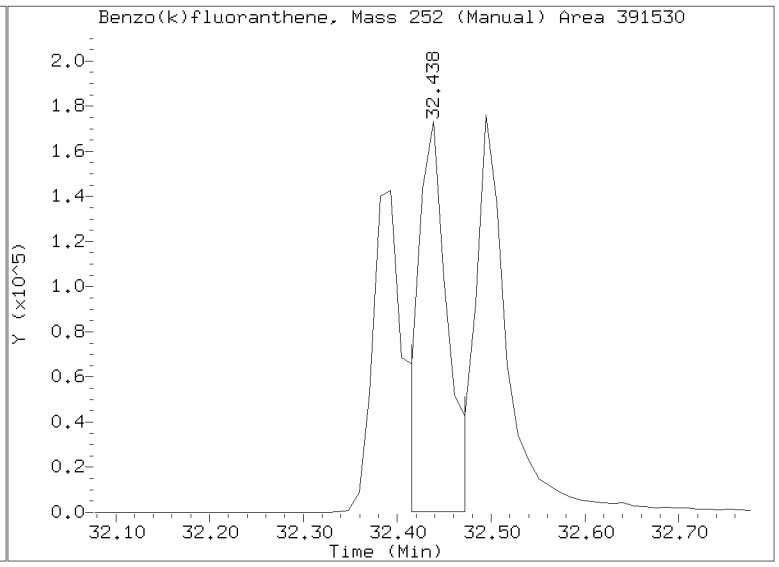
Quant Ion Manual Peak Adjustment Report

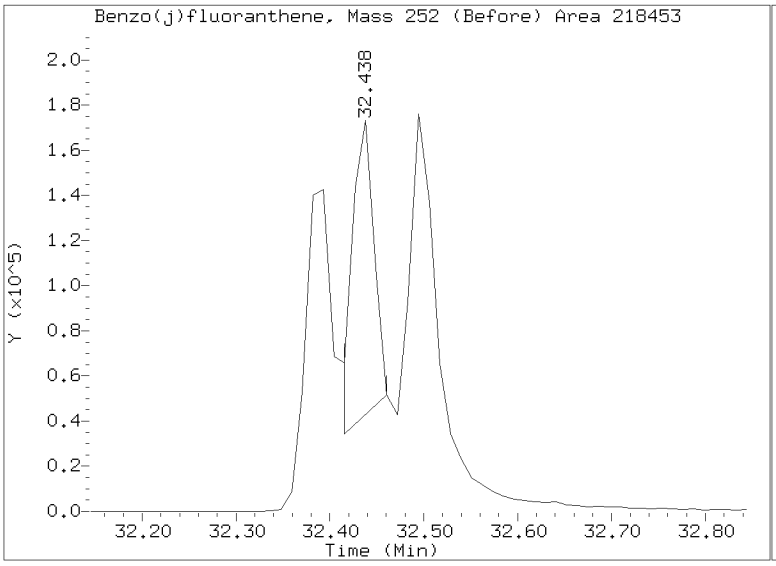
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

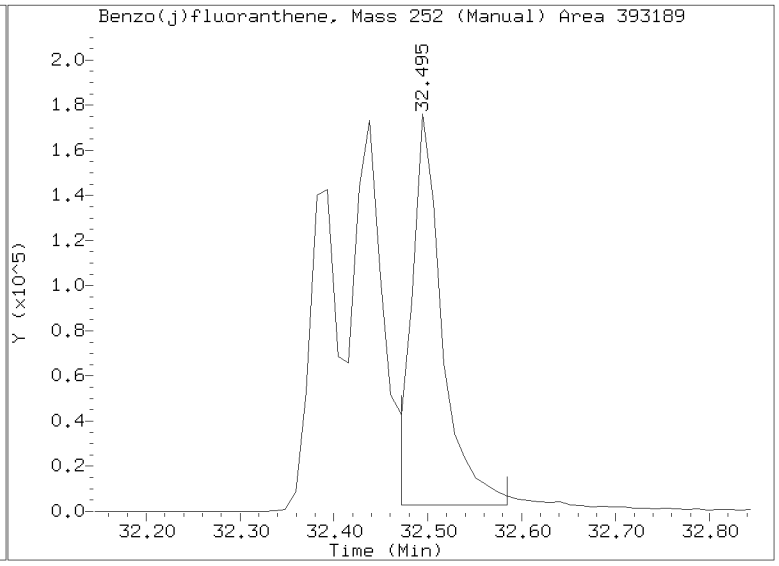






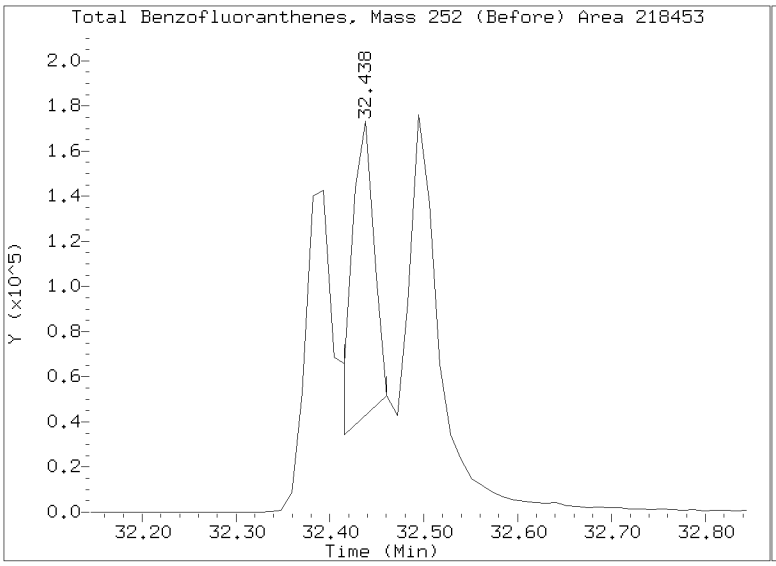


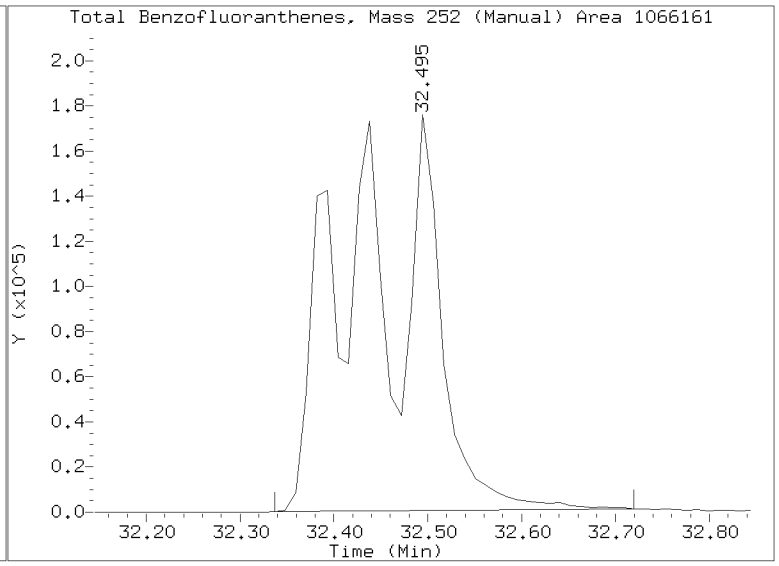


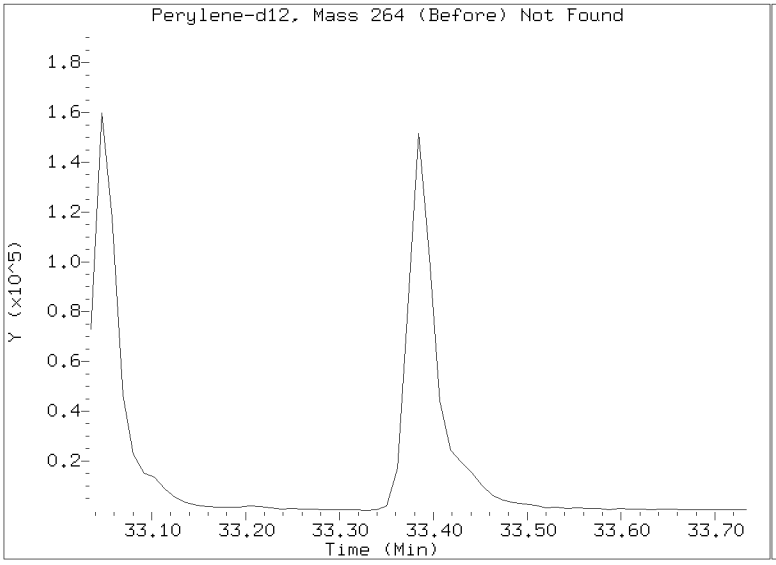


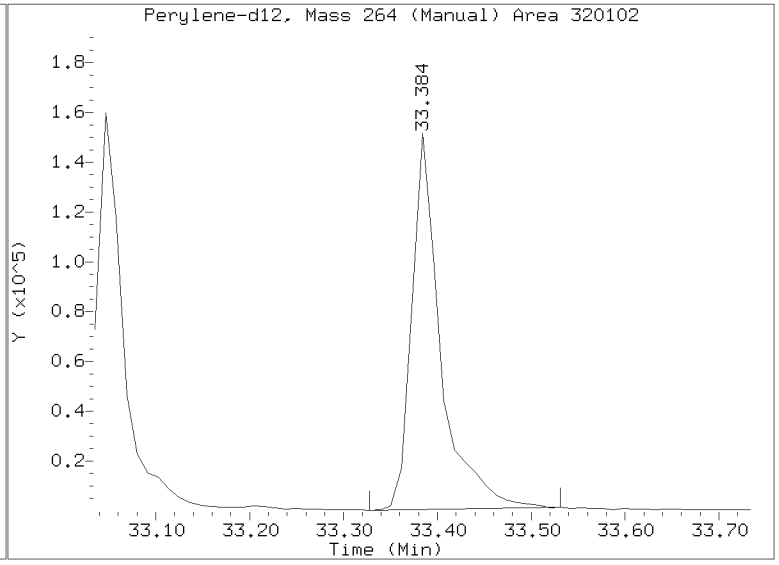
Quant Ion Manual Peak Adjustment Report

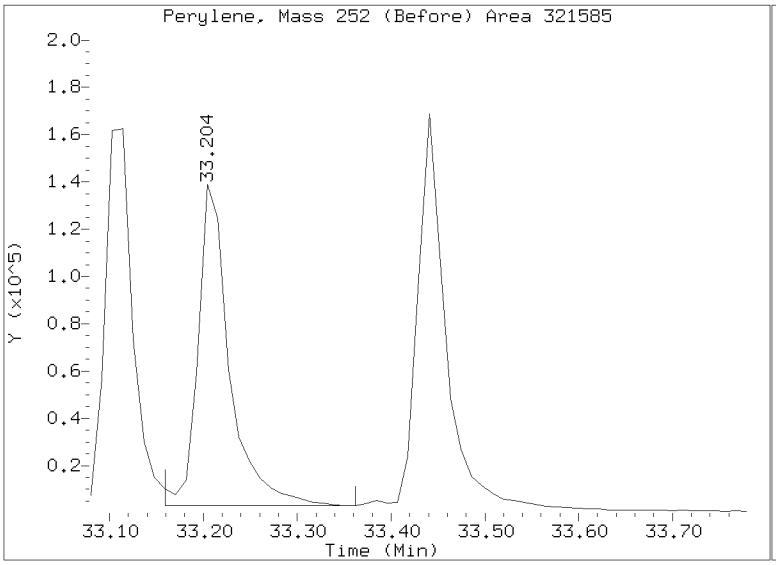
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

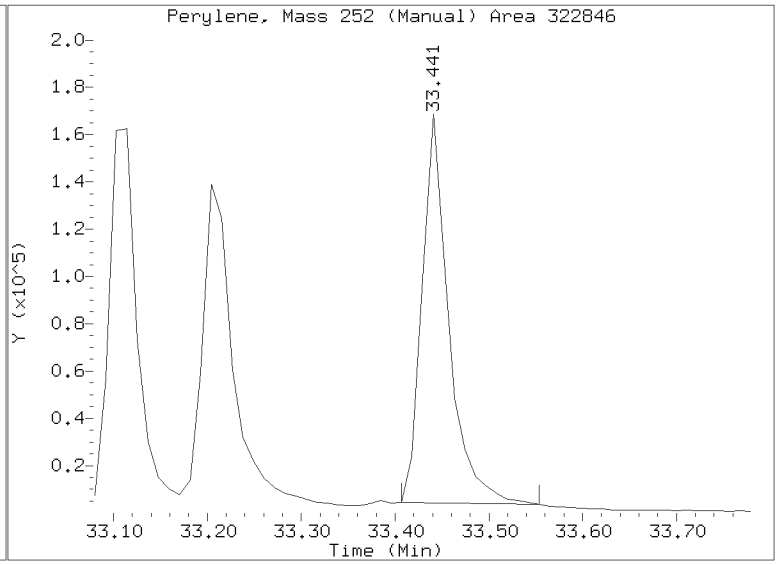






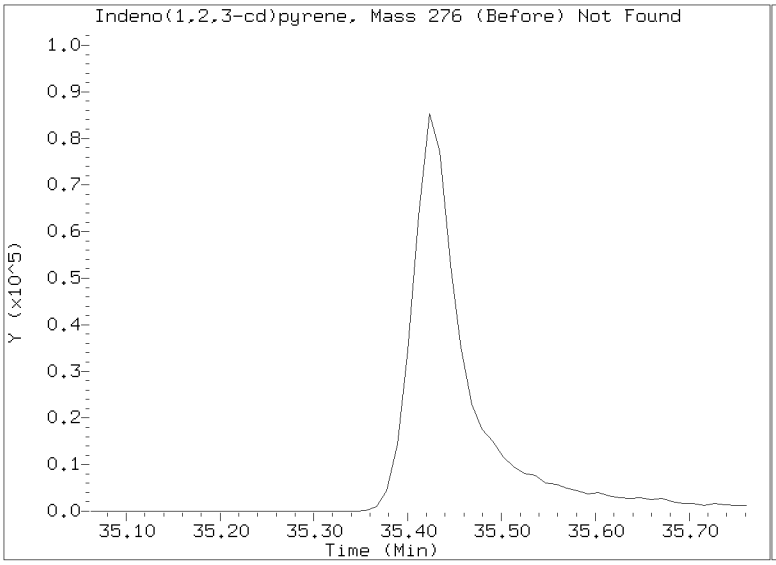


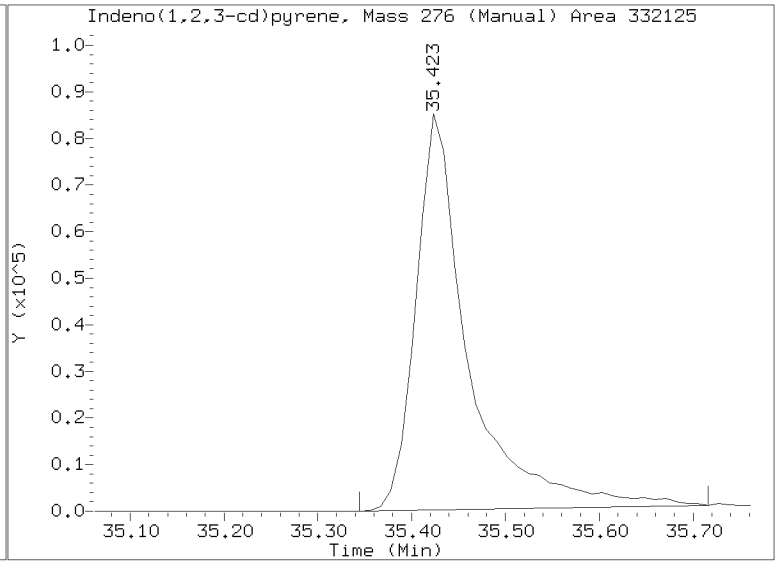


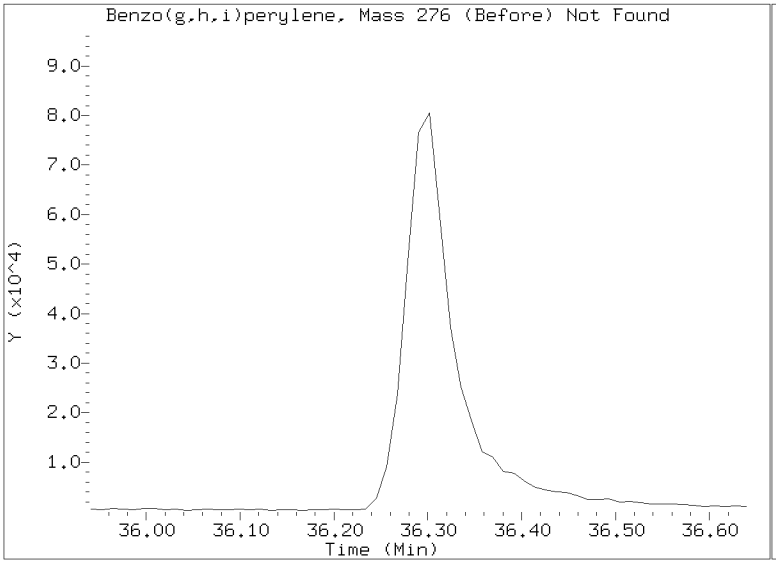


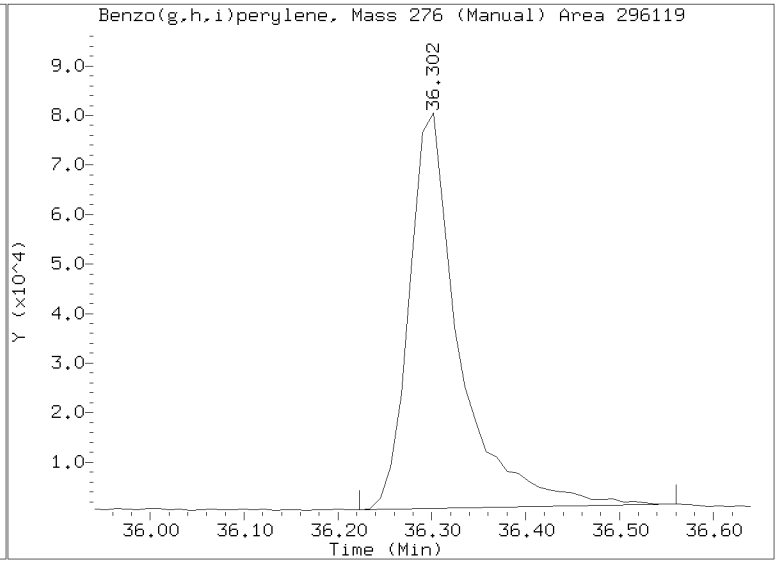
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18









SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. **SDG:** 21D0182

Client: Anchor QEA, LLC **Project:** Gasco Siltronic - US Moorings

Calibration: EE00001 **Laboratory ID:** SJD0305-SCV1

Sequence: SJD0305 **Standard ID:** J004707

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
trans-Decalin	2.5000	2.8	13.7	20.00
cis-Decalin	2.5000	2.9	16.4	20.00
Naphthalene	2.5000	2.8	11.3	20.00
1-Methylnaphthalene	2.5000	2.8	12.9	20.00
2-Methylnaphthalene	2.5000	2.8	13.8	20.00
Biphenyl	2.5000	2.8	10.6	20.00
2,6-Dimethylnaphthalene	2.5000	2.8	12.9	20.00
Acenaphthylene	2.5000	2.9	15.6	20.00
Acenaphthene	2.5000	3.0	20.4	20.00
Dibenzofuran	2.5000	2.8	10.7	20.00
2,3,5-Trimethylnaphthalene	2.5000	2.9	16.9	20.00
Fluorene	2.5000	2.8	13.8	20.00
Benzo(b)thiophene	2.5000	2.8	11.5	20.00
Phenanthrene	2.5000	2.5	-1.3	20.00
Anthracene	2.5000	2.5	-0.3	20.00
Carbazole	2.5000	2.3	-6.3	20.00
1-Methylphenanthrene	2.5000	2.6	3.8	20.00
Fluoranthene	2.5000	2.6	5.4	20.00
Dibenzothiophene	2.5000	2.8	11.3	20.00
Pyrene	2.5000	2.5	1.1	20.00
Benzo(a)anthracene	2.5000	2.3	-8.9	20.00
Chrysene	2.5000	2.6	3.0	20.00
Benzo(b)fluoranthene	2.5000	2.3	-7.0	
Benzo(j)fluoranthene	2.5000	2.5	0.6	
Benzo(k)fluoranthene	2.5000	2.3	-7.8	
Benzo(e)pyrene	2.5000	2.5	-1.8	20.00
Benzo(a)pyrene	2.5000	2.2	-11.6	20.00
Indeno(1,2,3-cd)pyrene	2.5000	2.2	-10.6	20.00
Dibenzo(a,h)anthracene	2.5000	2.3	-8.4	20.00
Benzo(g,h,i)perylene	2.5000	2.4	-5.9	20.00
Perylene	2.5000	2.4	-3.4	20.00
Naphthalene-d8	2.5000	2.99	19.5	20.00

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. **SDG:** 21D0182

Client: Anchor QEA, LLC **Project:** Gasco Siltronic - US Moorings

Calibration: EE00001 **Laboratory ID:** SJD0305-SCV1

Sequence: SJD0305 **Standard ID:** J004707

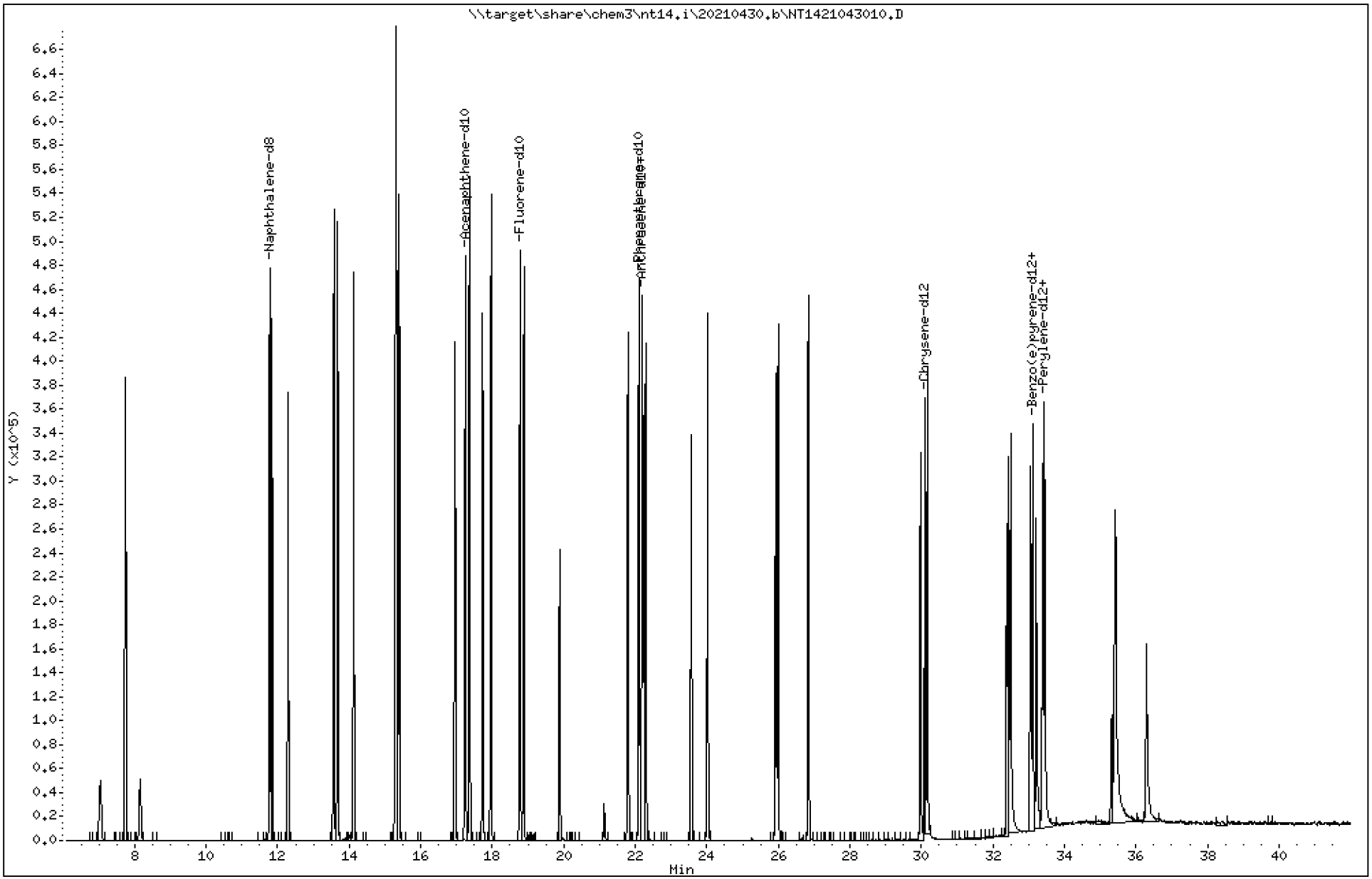
Acenaphthene-d10	2.5000	3.02	20.7	20.00
Phenanthrene-d10	2.5000	2.67	6.8	20.00
Chrysene-d12	2.5000	2.83	13.1	20.00
Perylene-d12	2.5000	2.51	0.2	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Date : 30-APR-2021 14:41
Client ID:
Sample Info: SJD0305-SCV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

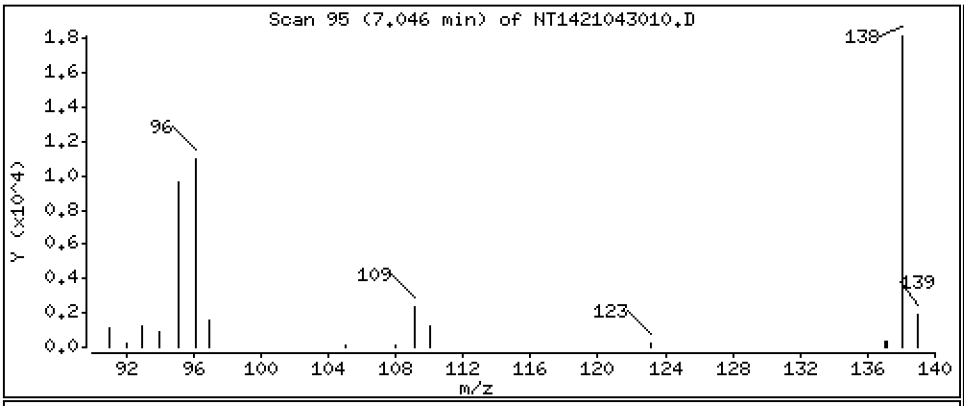
Operator: VTS

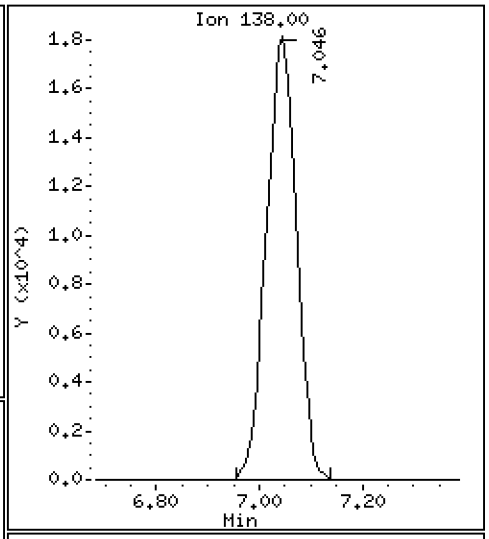
Column phase: Rxi-17Sil MS

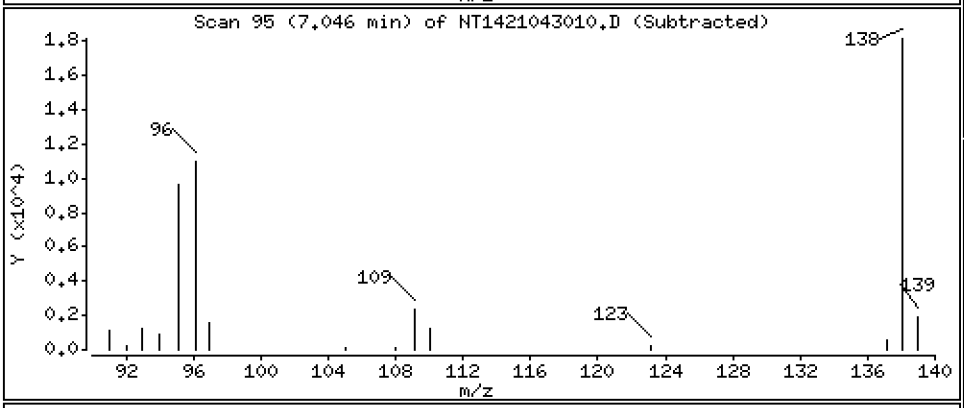
Column diameter: 0.25

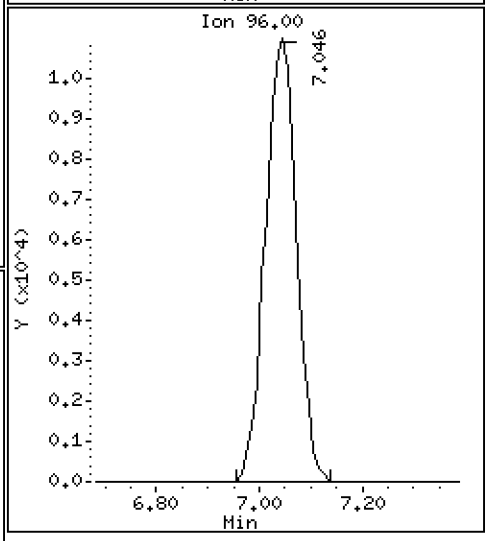
1 trans-Decalin

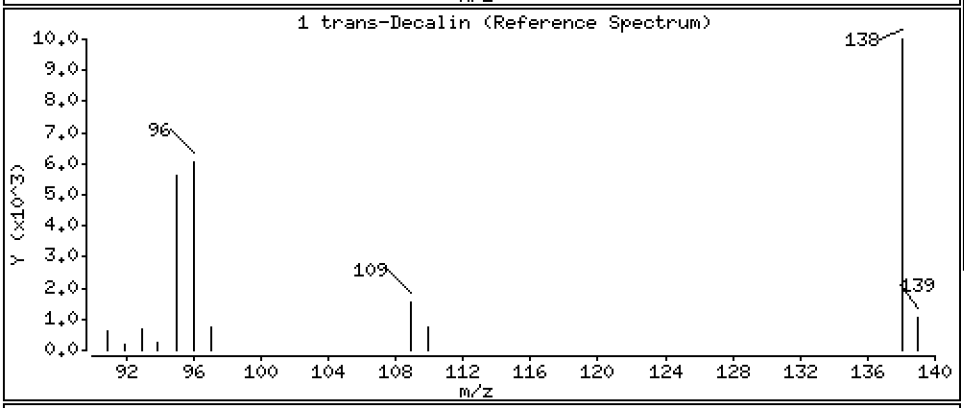
Concentration: 2.843 ug/mL

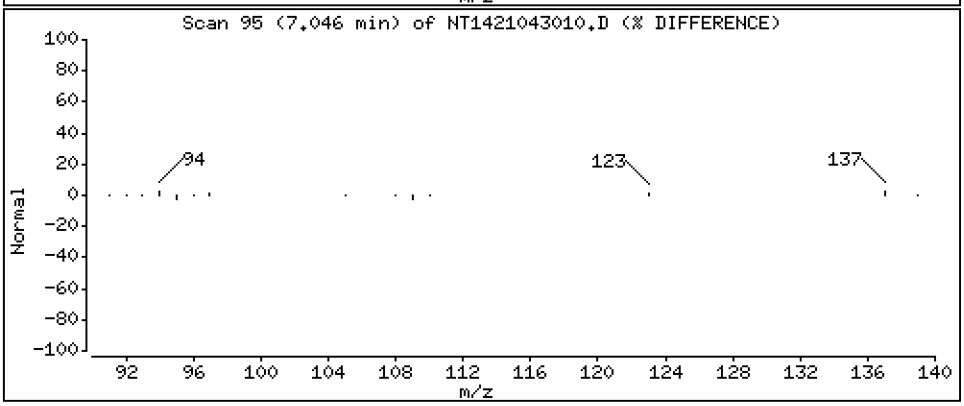












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

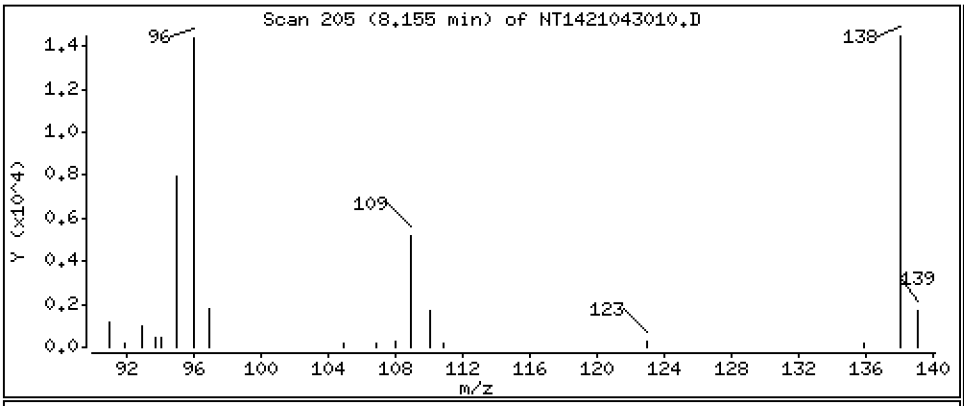
Operator: VTS

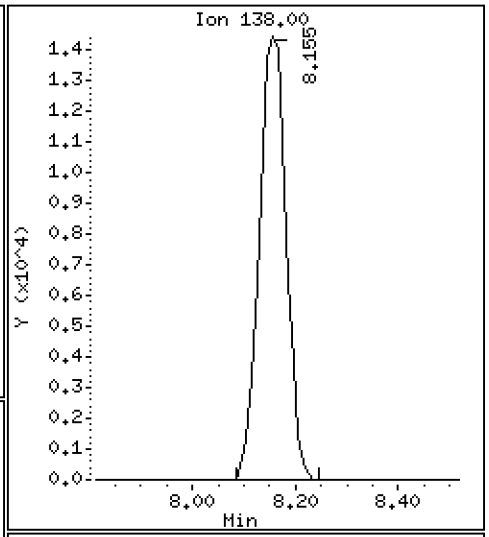
Column phase: Rxi-17Sil MS

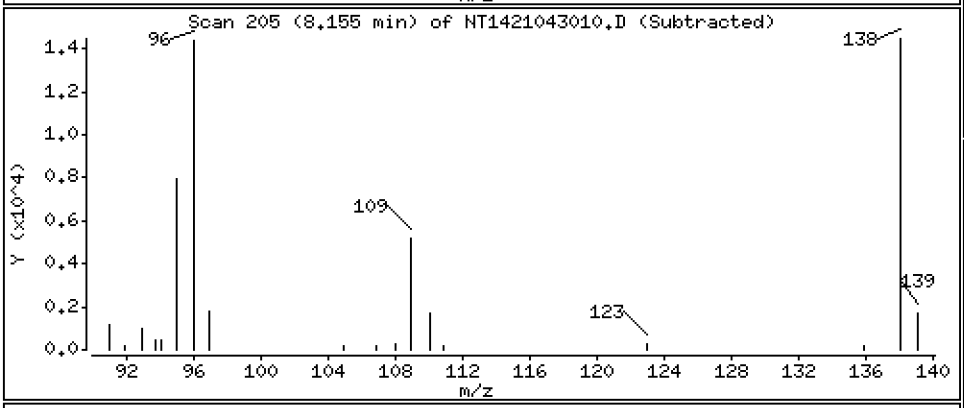
Column diameter: 0.25

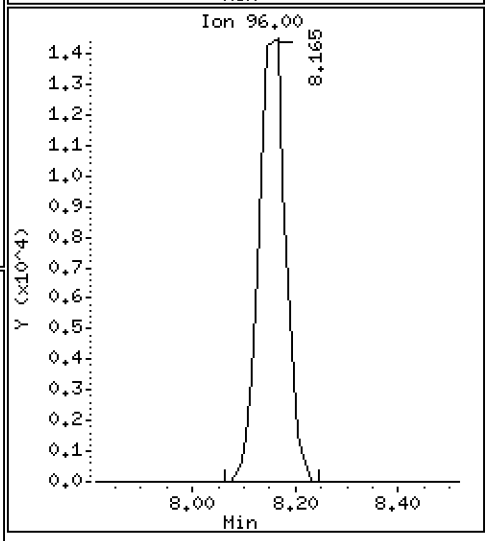
2 cis-Decalin

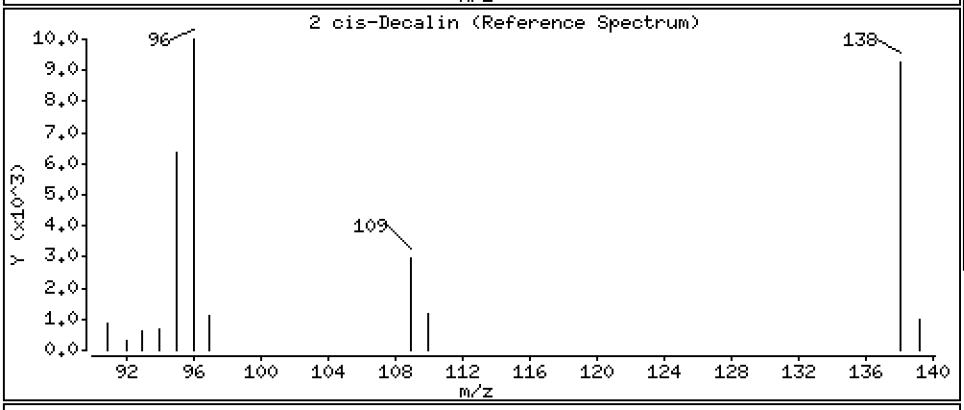
Concentration: 2.910 ug/mL

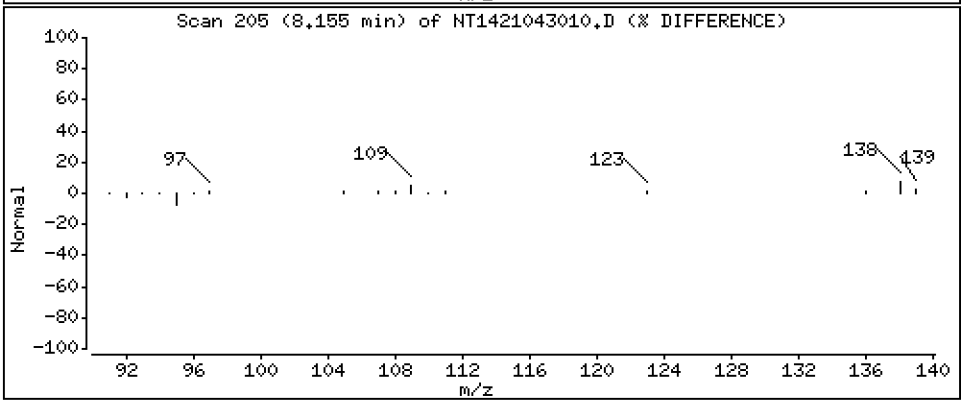












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

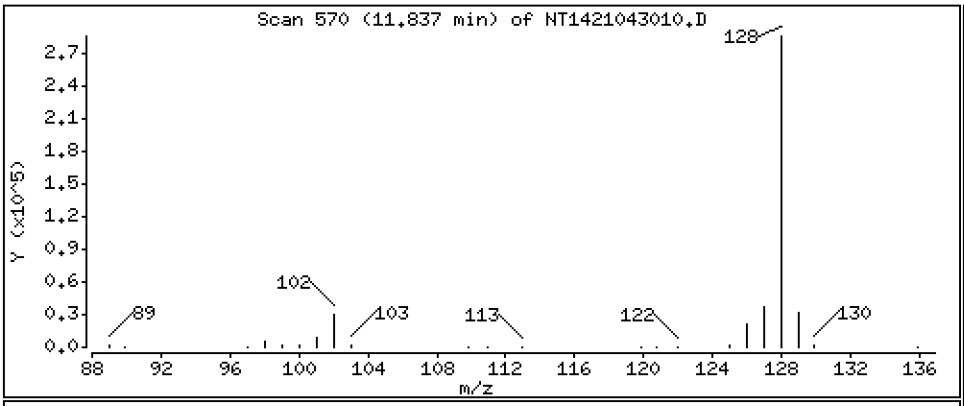
Operator: VTS

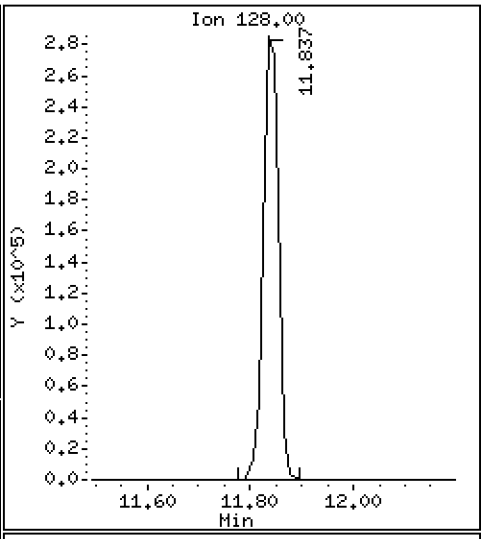
Column phase: Rxi-17Sil MS

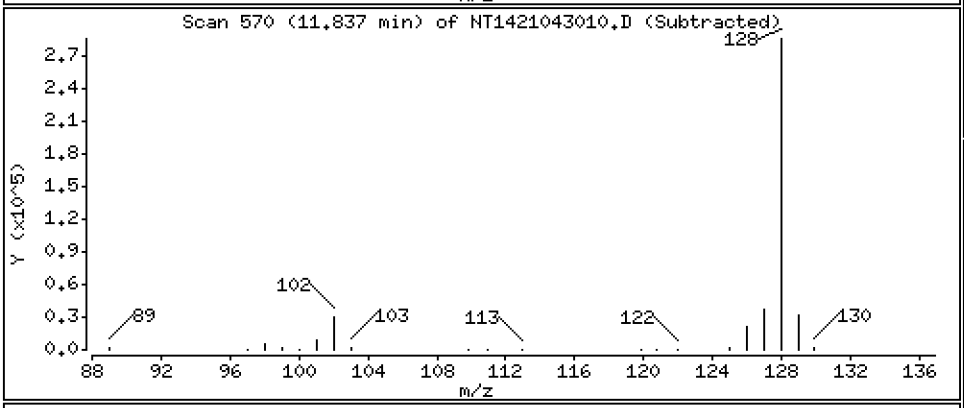
Column diameter: 0.25

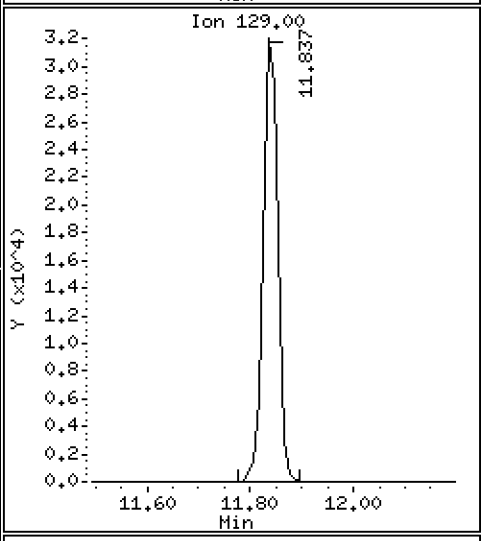
7 Naphthalene

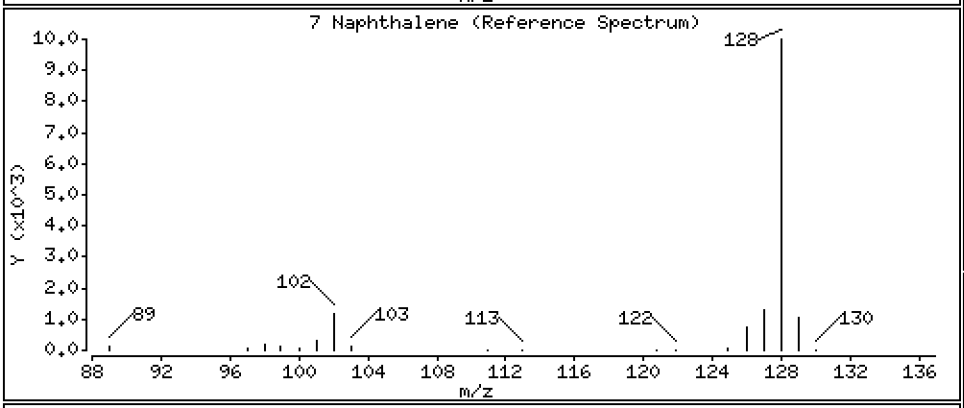
Concentration: 2.783 ug/mL

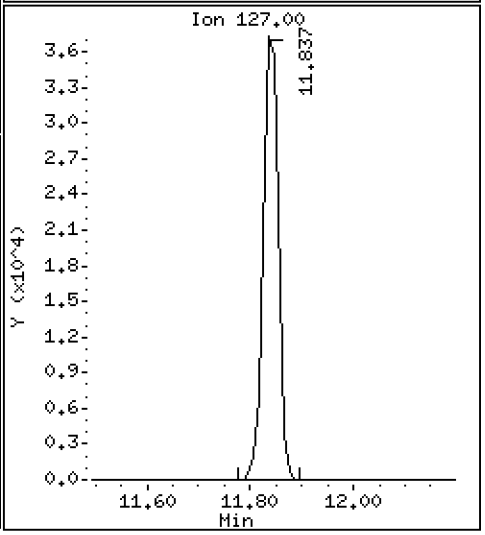


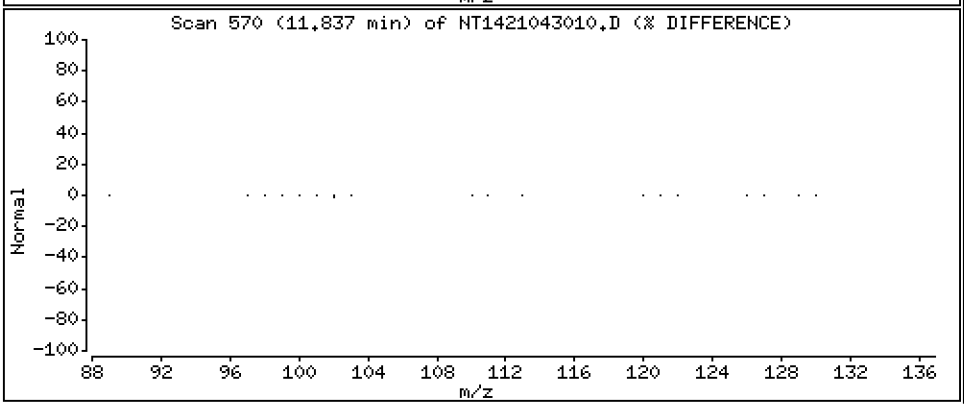












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

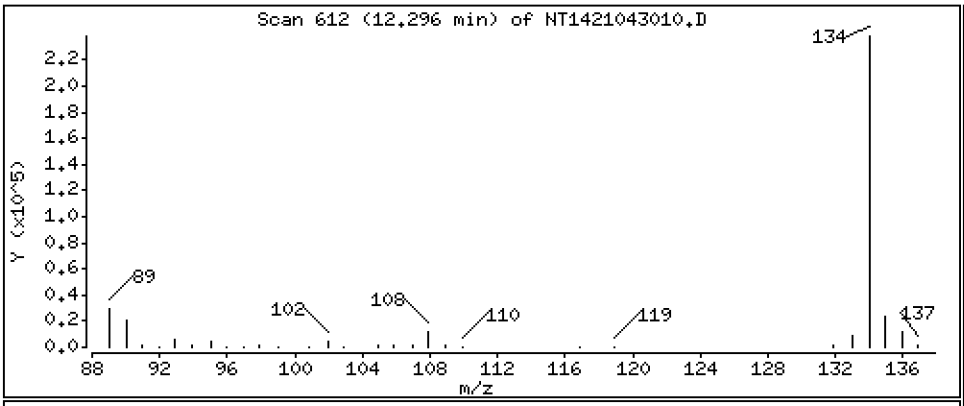
Operator: VTS

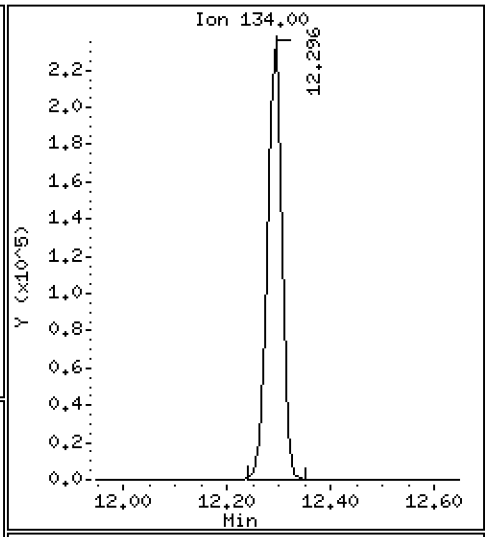
Column phase: Rxi-17Sil MS

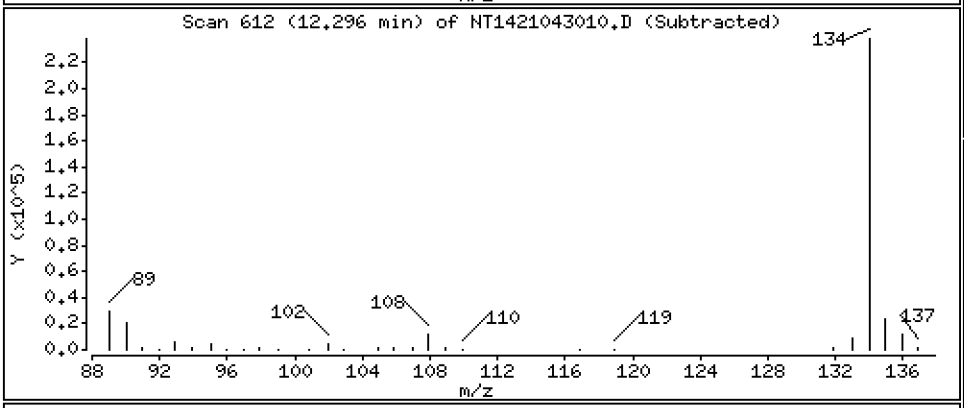
Column diameter: 0.25

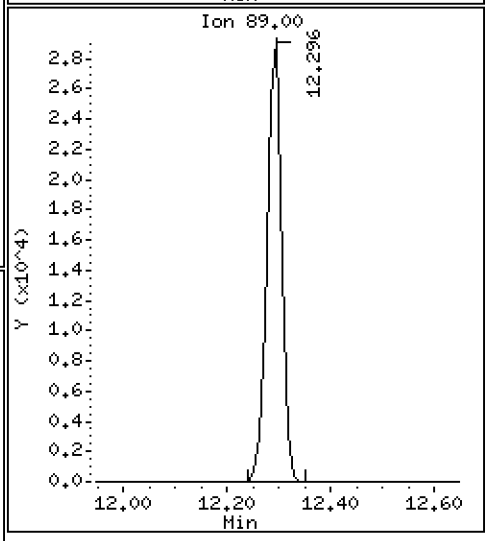
12 Benzo(b)thiophene

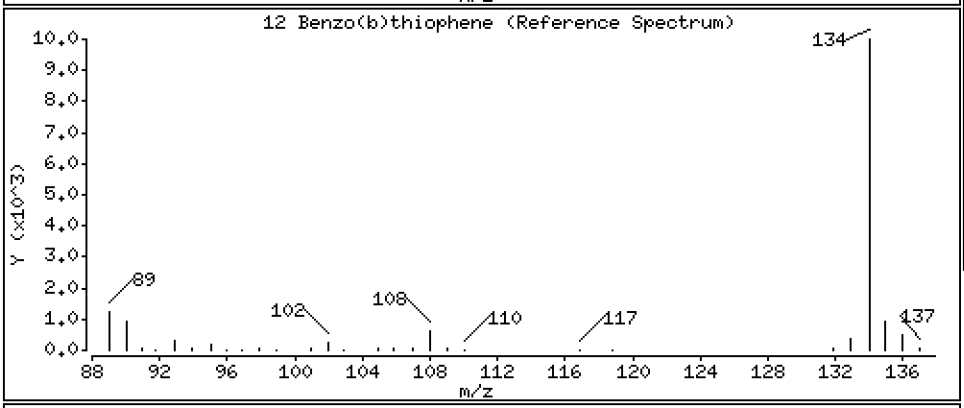
Concentration: 2.787 ug/mL

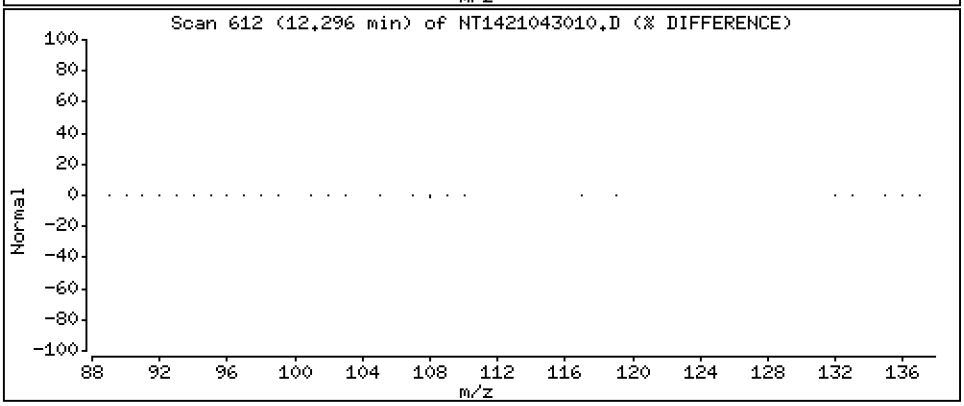












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

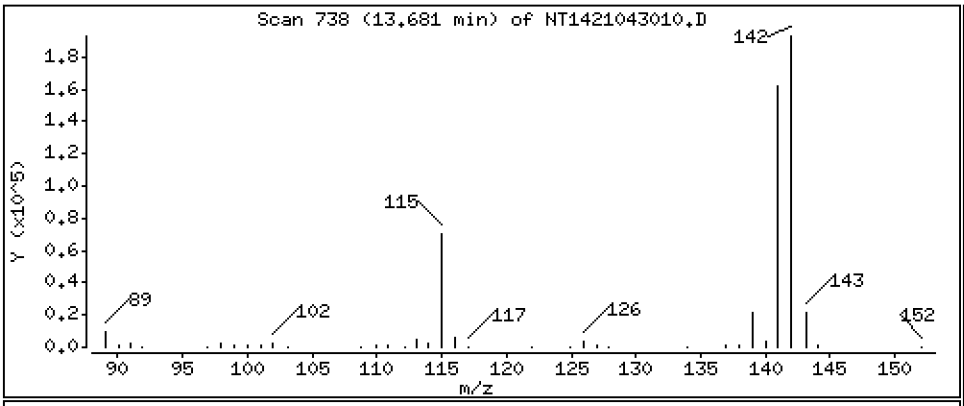
Operator: VTS

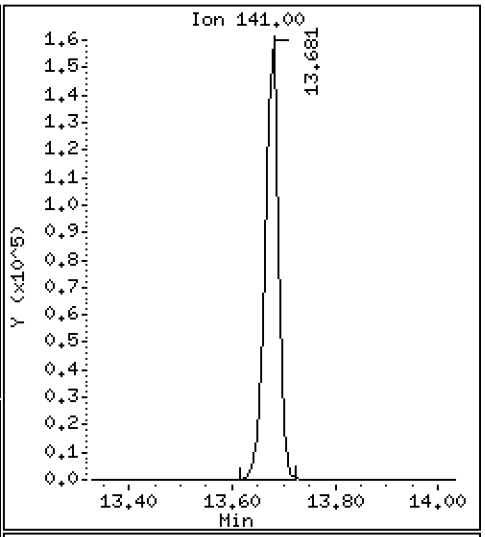
Column phase: Rxi-17Sil MS

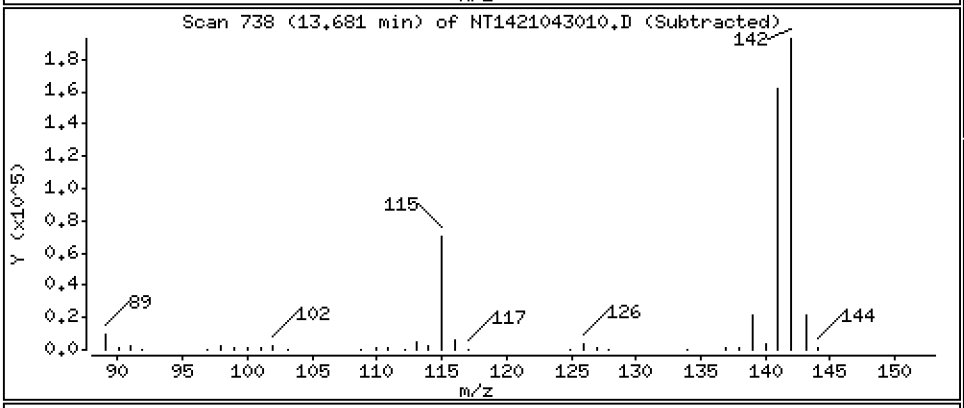
Column diameter: 0.25

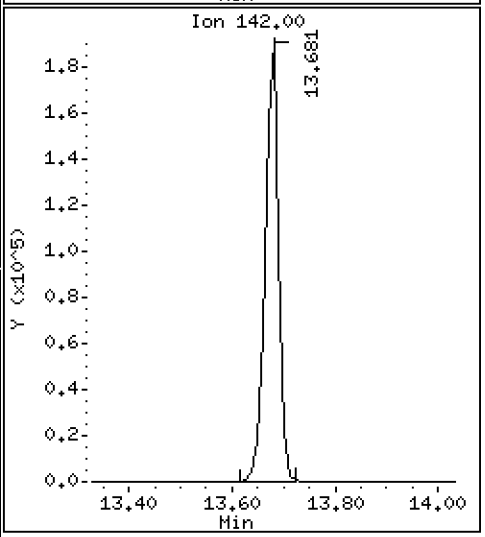
16 2-Methylnaphthalene

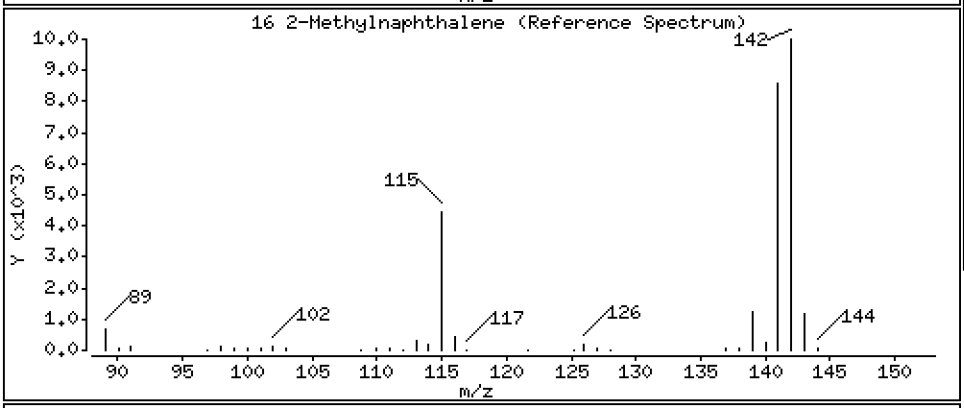
Concentration: 2.845 ug/mL

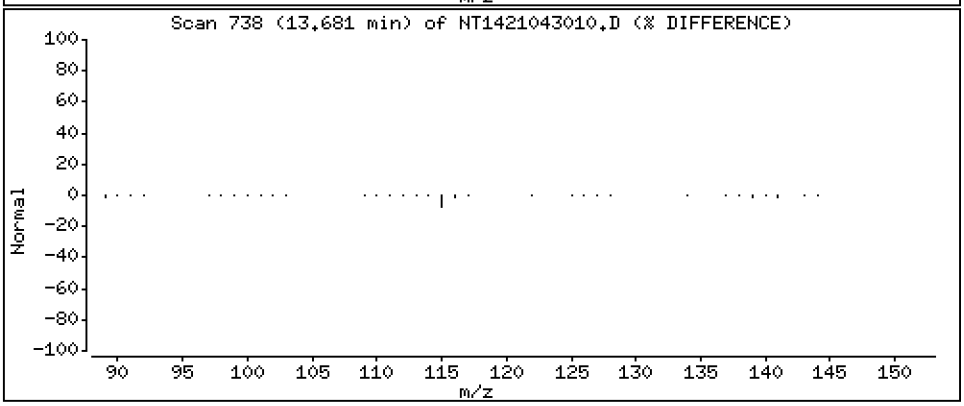












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

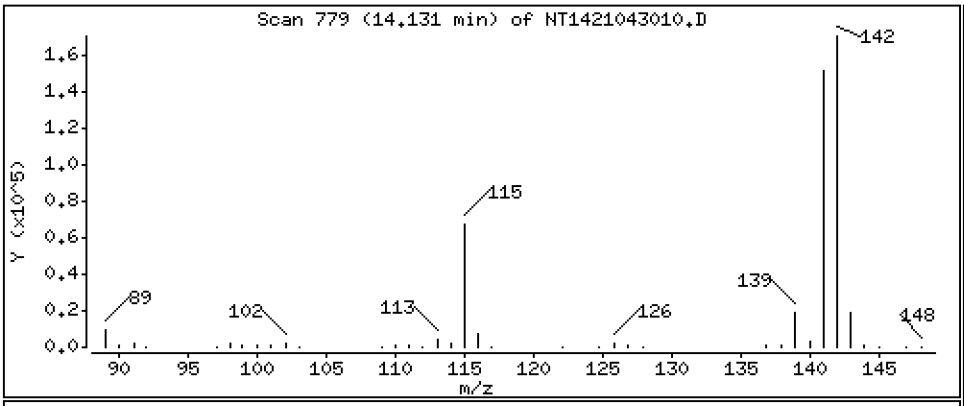
Operator: VTS

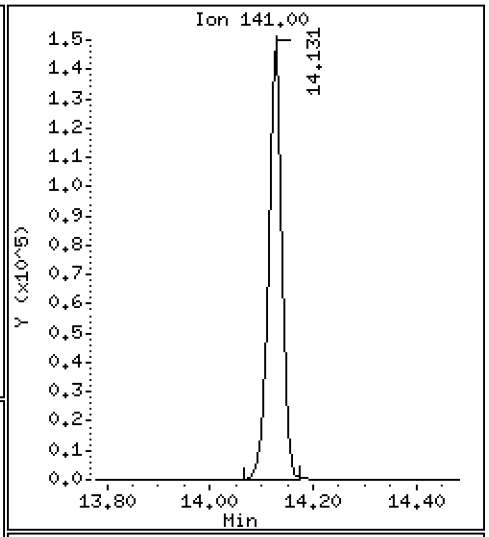
Column phase: Rxi-17Sil MS

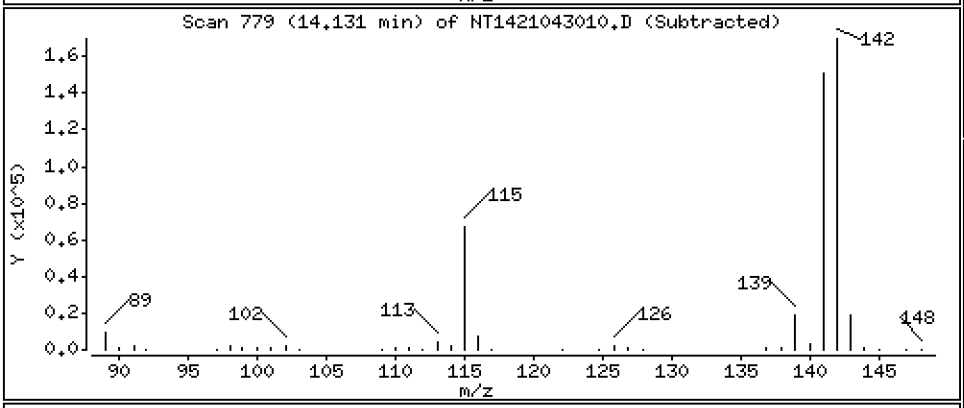
Column diameter: 0.25

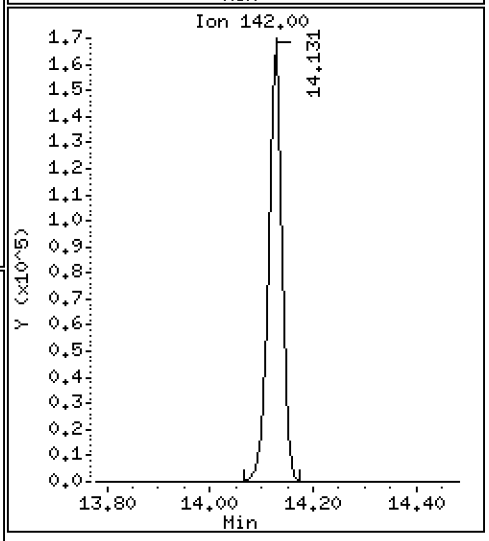
17 1-methylnaphthalene

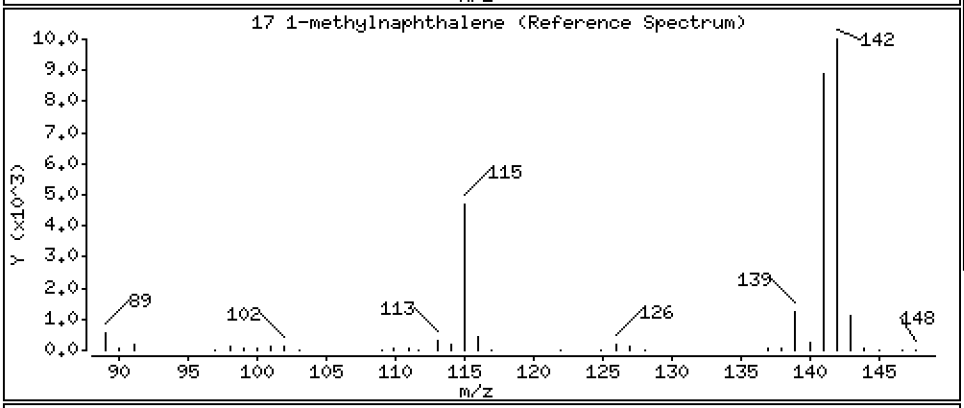
Concentration: 2.821 ug/mL

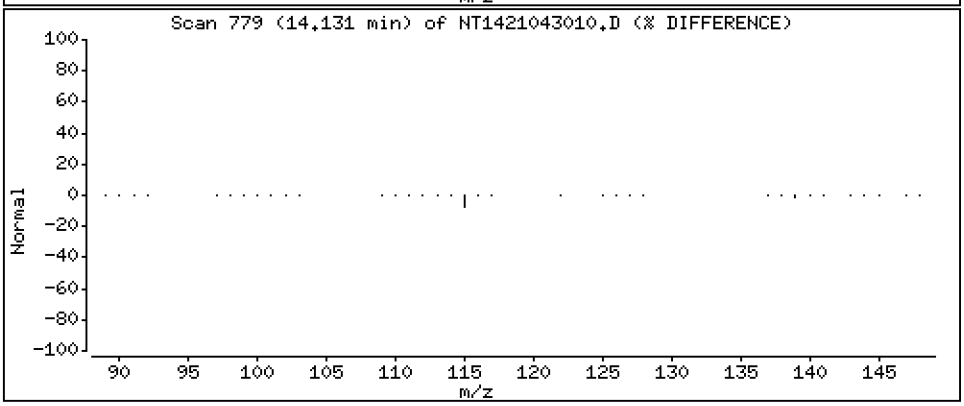












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

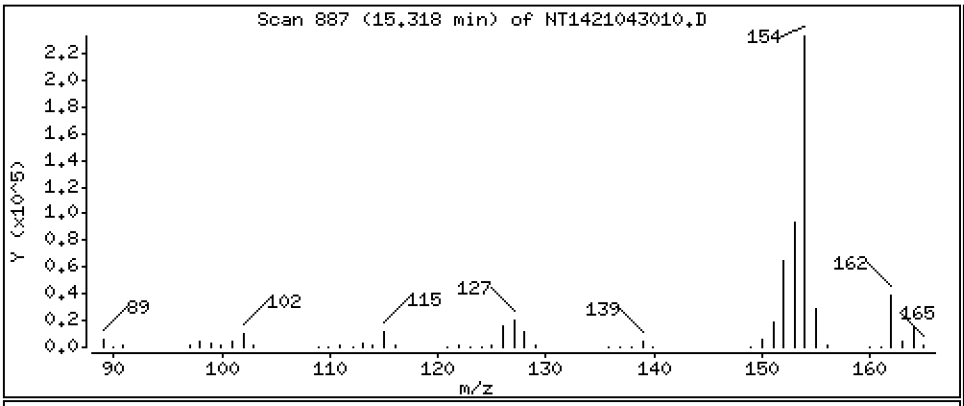
Operator: VTS

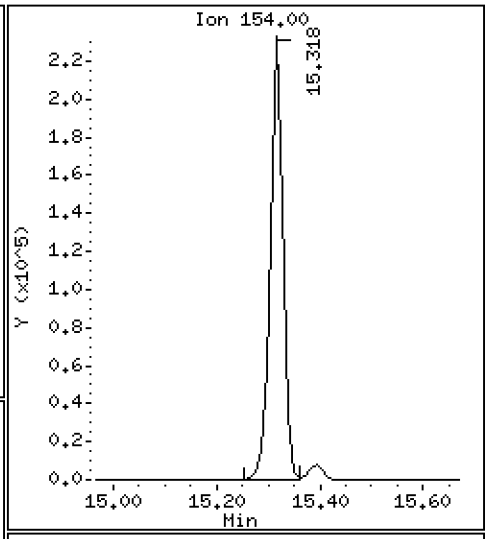
Column phase: Rxi-17Sil MS

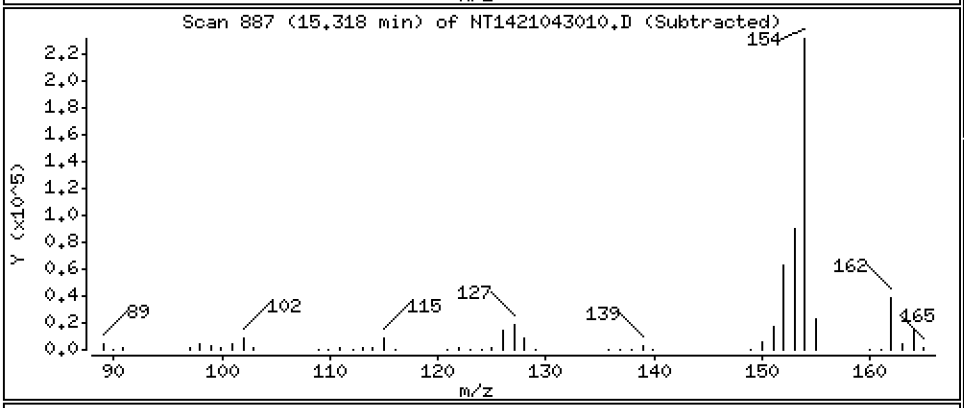
Column diameter: 0.25

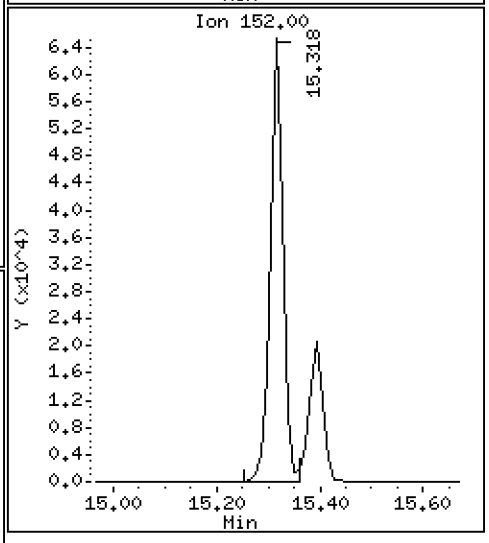
18 Biphenyl

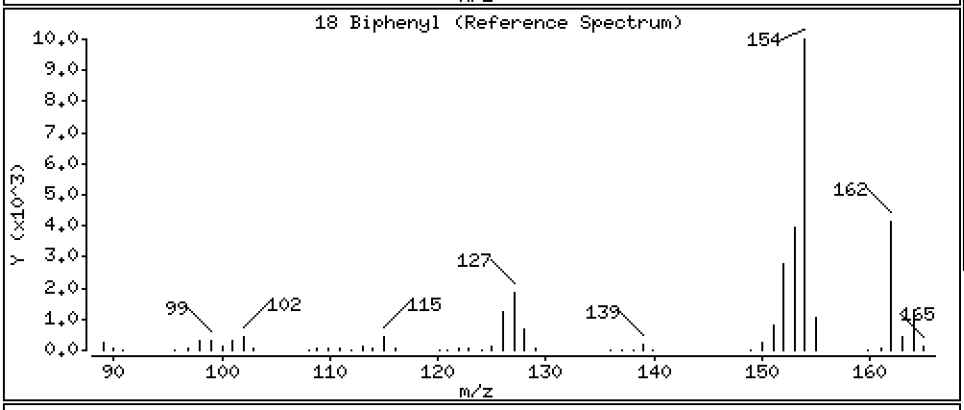
Concentration: 2.765 ug/mL

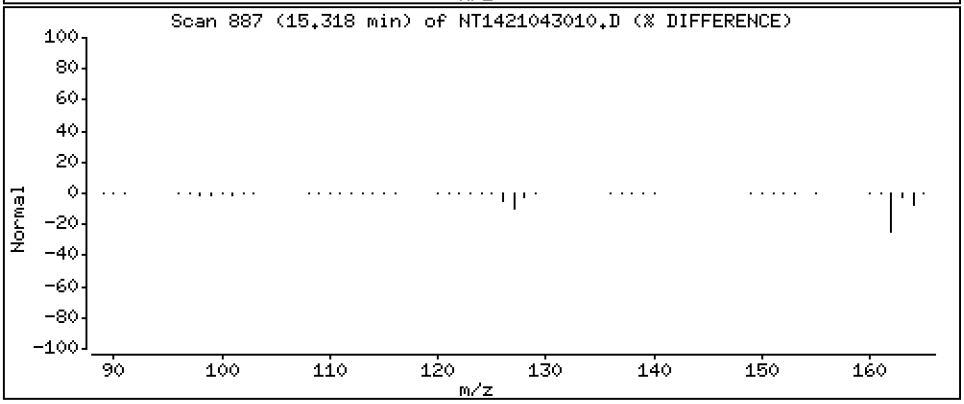












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

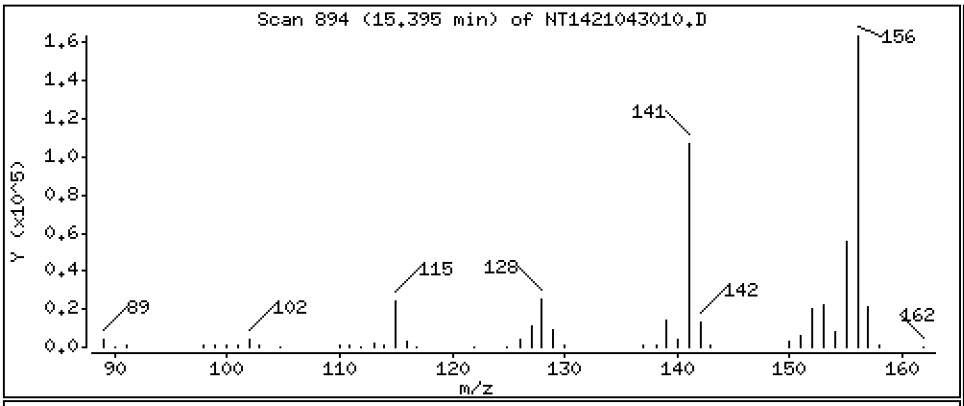
Operator: VTS

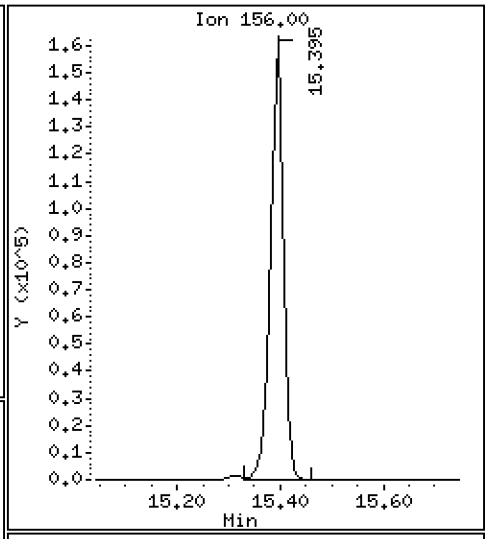
Column phase: Rxi-17Sil MS

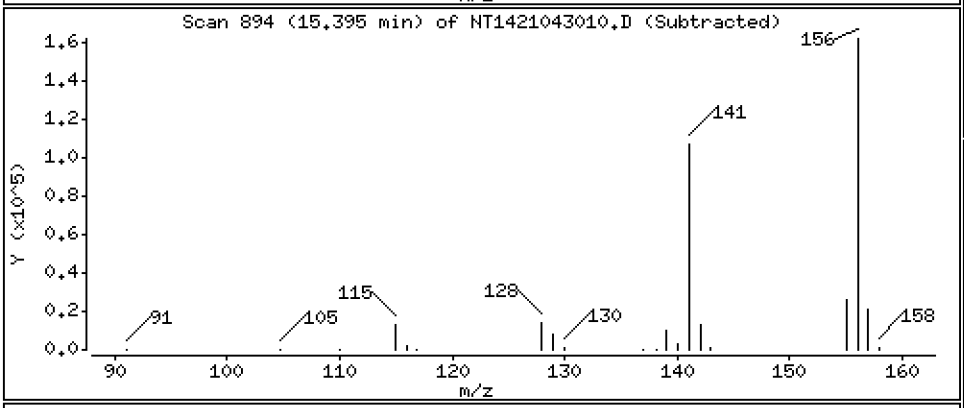
Column diameter: 0.25

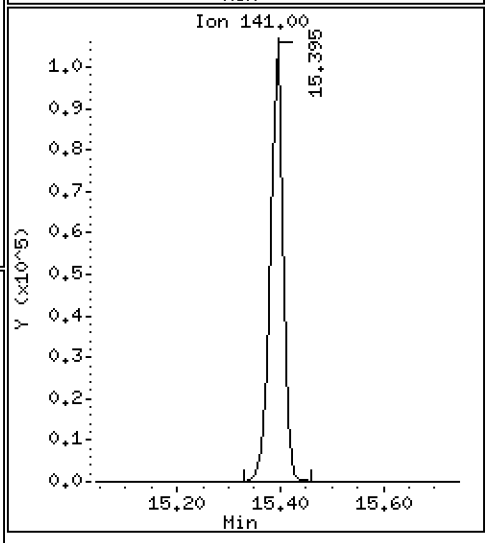
19 2,6-Dimethylnaphthalene

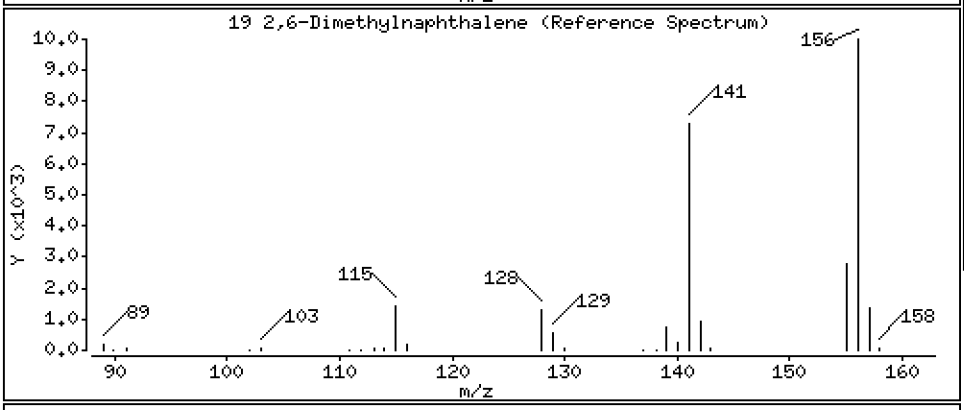
Concentration: 2.822 ug/mL

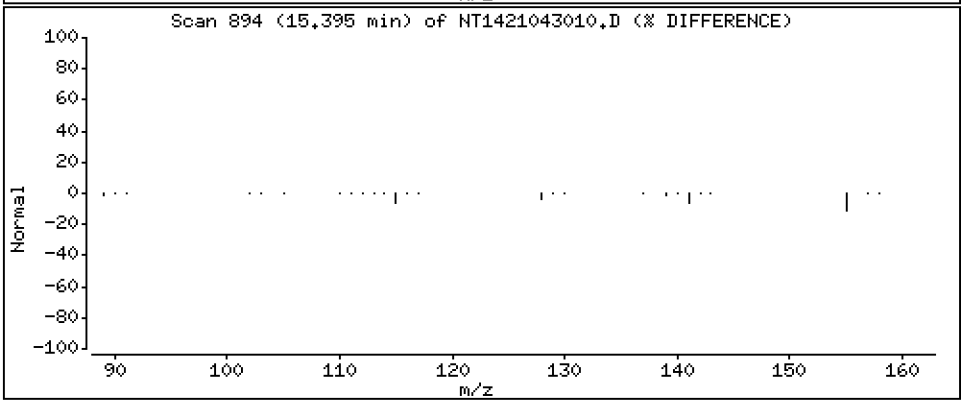












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

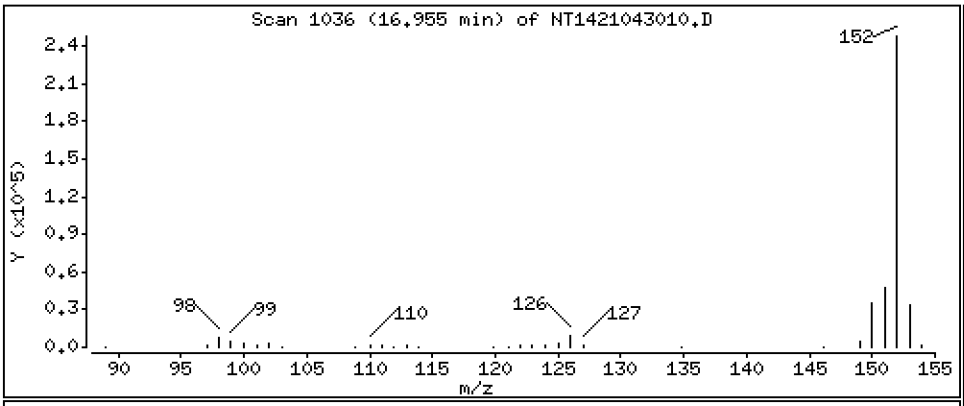
Operator: VTS

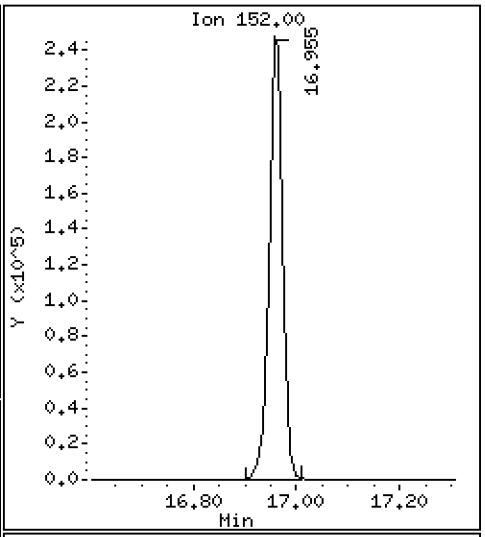
Column phase: Rxi-17Sil MS

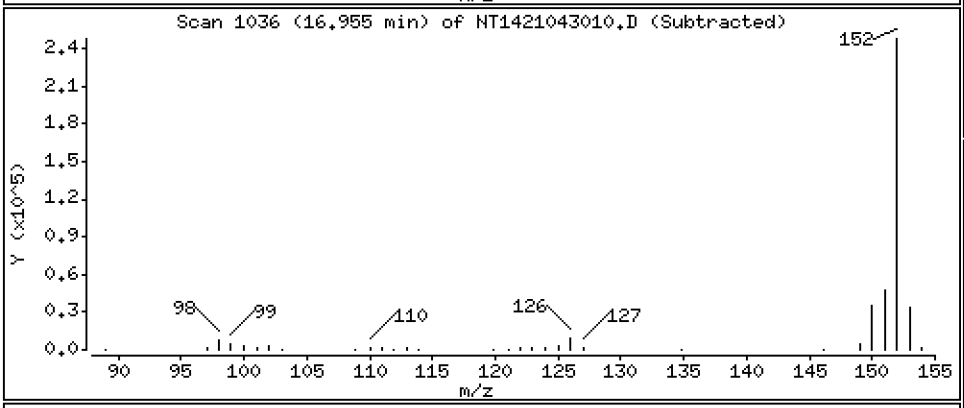
Column diameter: 0.25

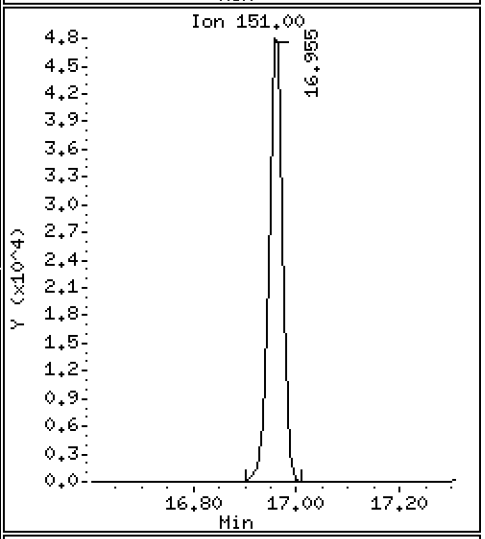
20 Acenaphthylene

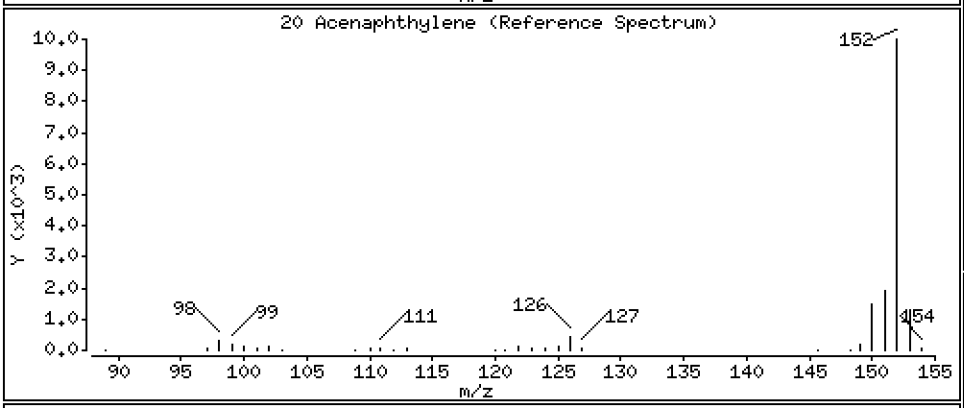
Concentration: 2.889 ug/mL

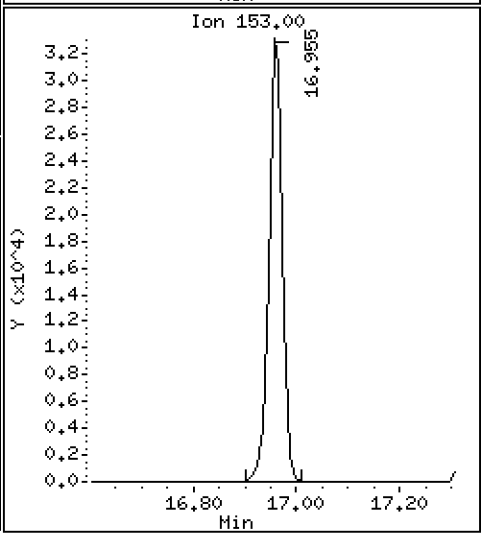


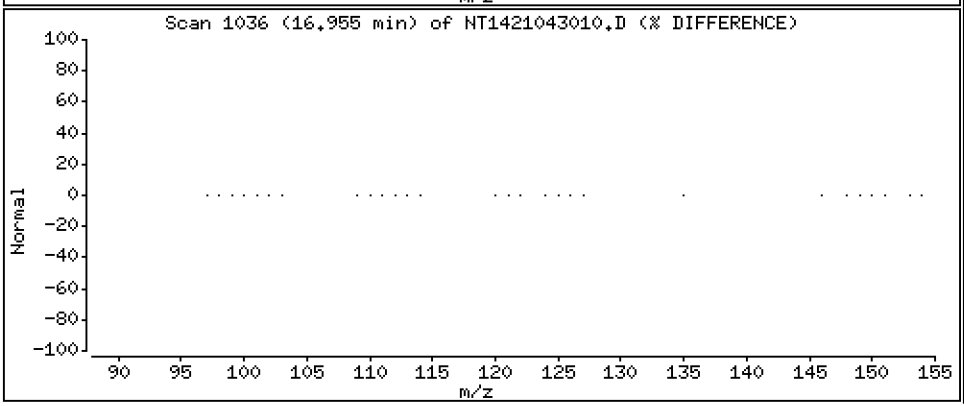












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

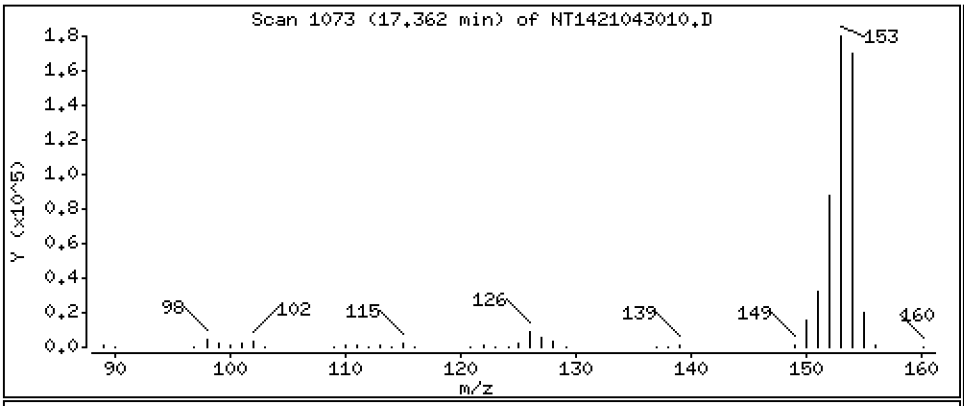
Operator: VTS

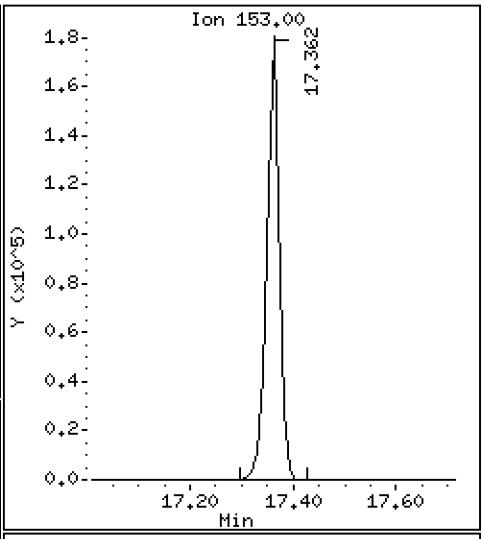
Column phase: Rxi-17Sil MS

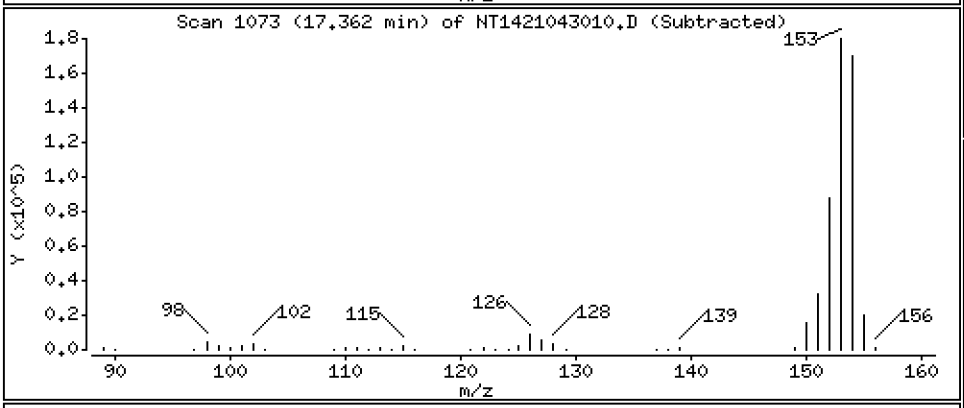
Column diameter: 0.25

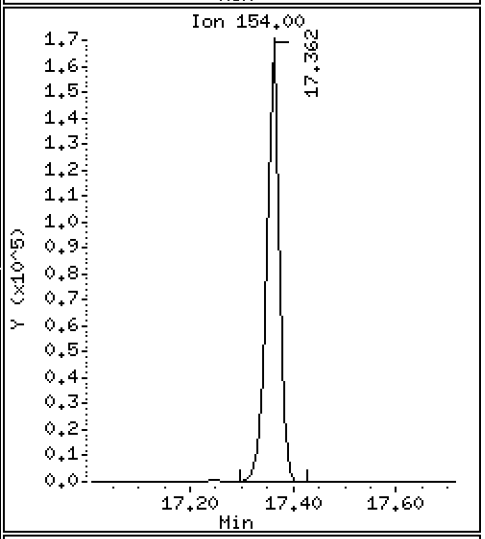
22 Acenaphthene

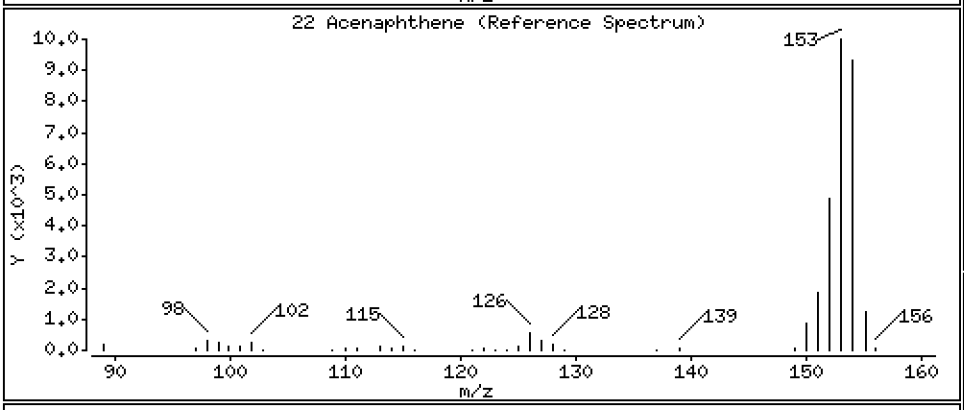
Concentration: 3.010 ug/mL

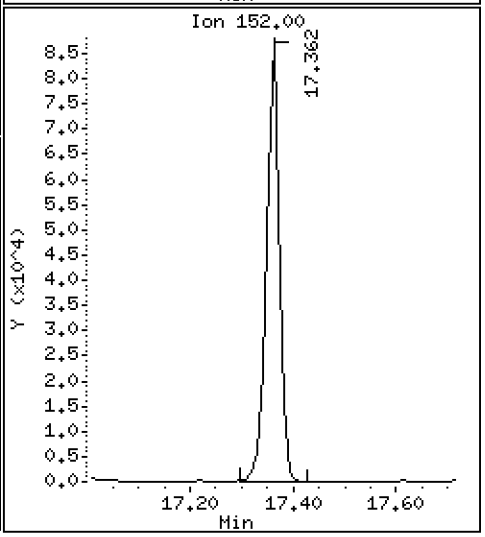


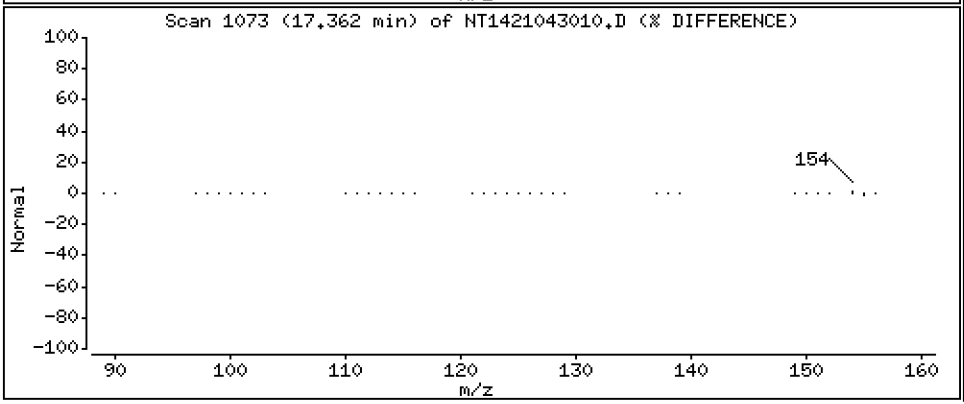












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

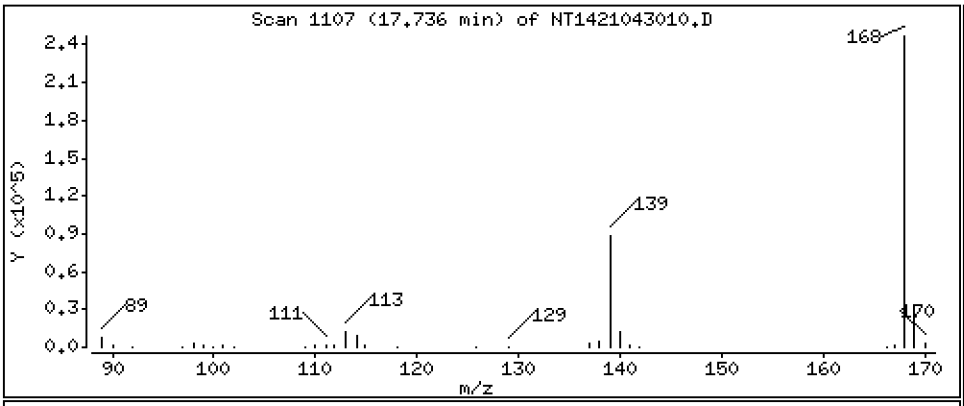
Operator: VTS

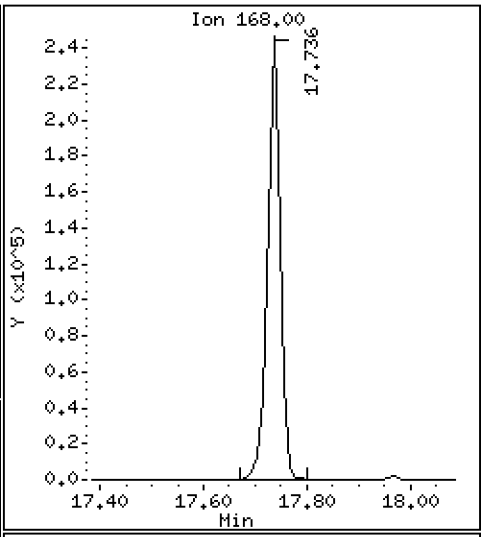
Column phase: Rxi-17Sil MS

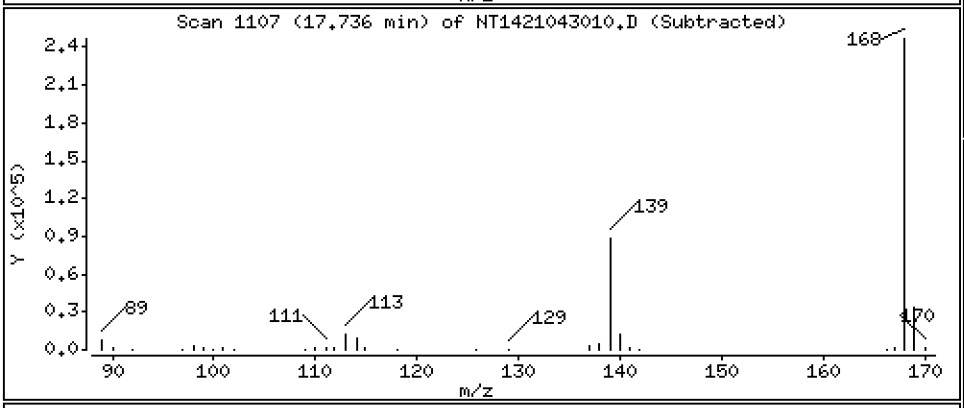
Column diameter: 0.25

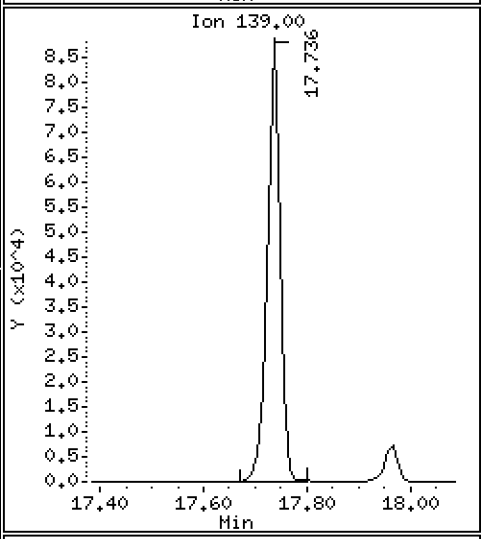
23 Dibenzofuran

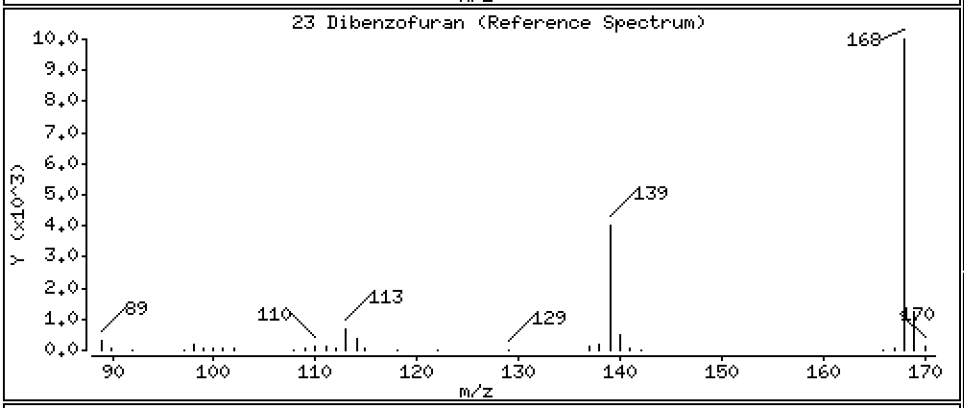
Concentration: 2.768 ug/mL

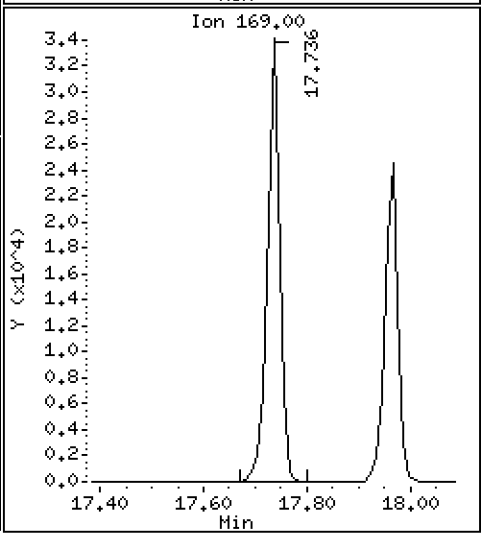


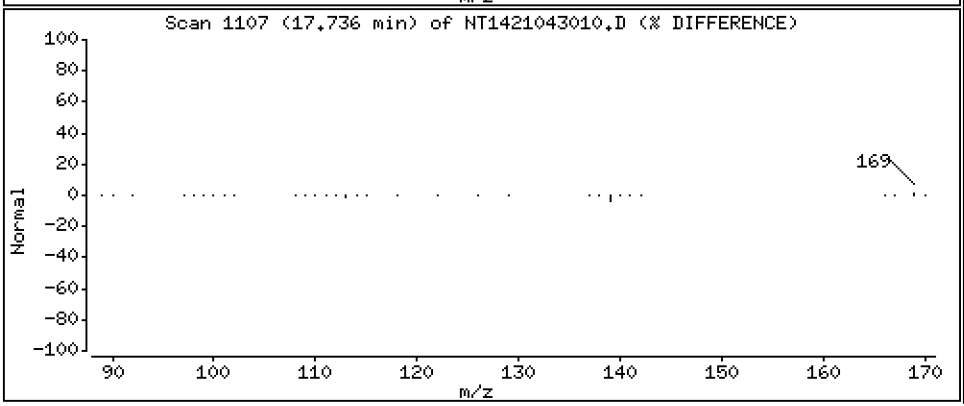












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

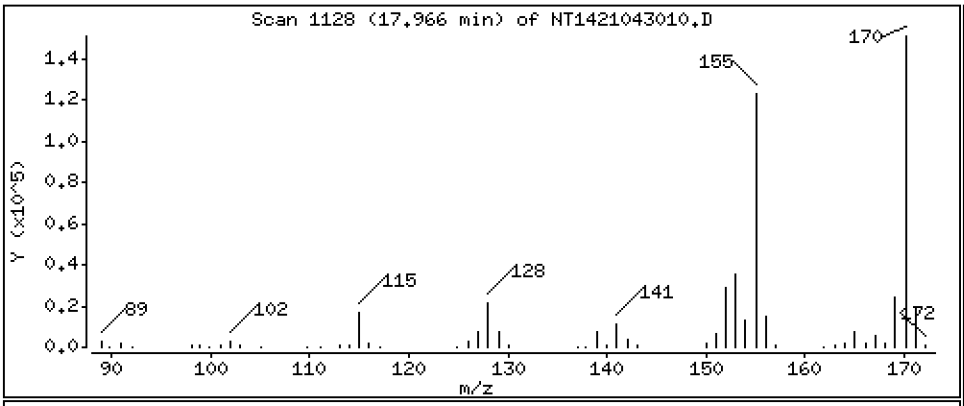
Operator: VTS

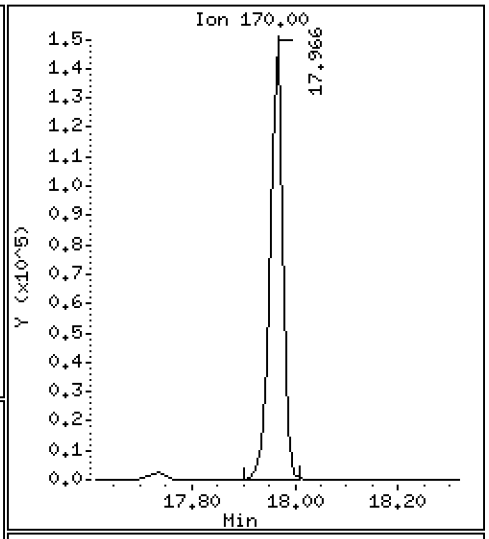
Column phase: Rxi-17Sil MS

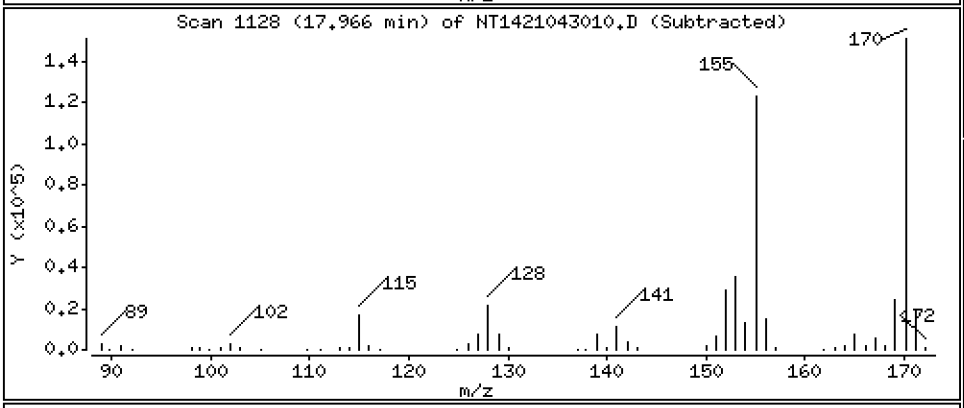
Column diameter: 0.25

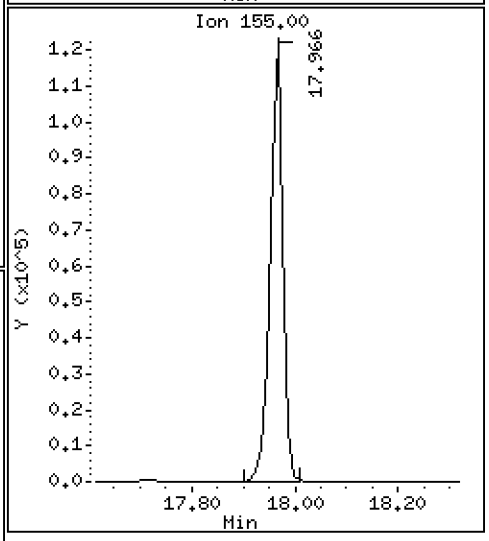
24 1,6,7-Trimethylnaphthalene

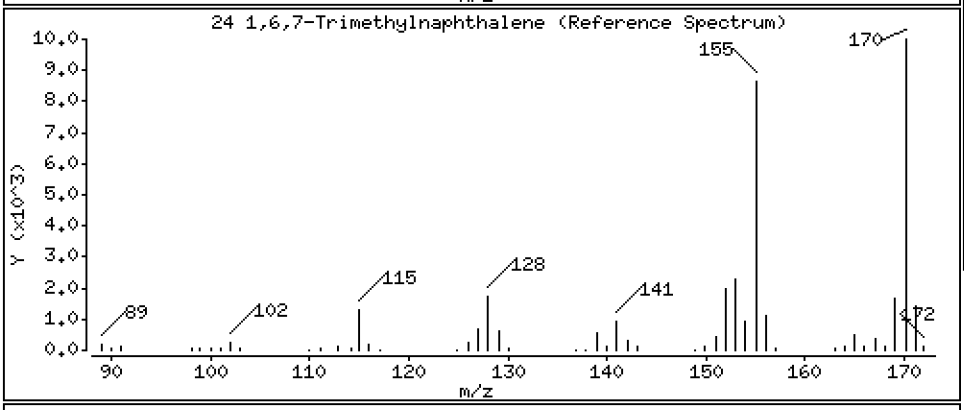
Concentration: 2.923 ug/mL

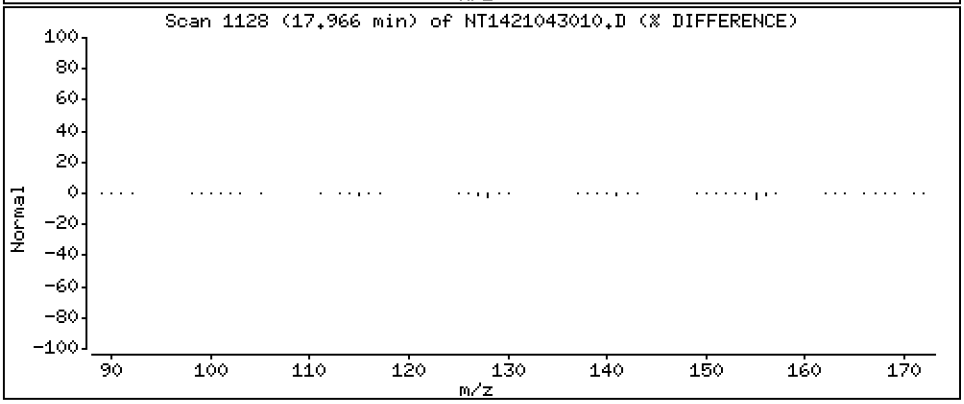












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

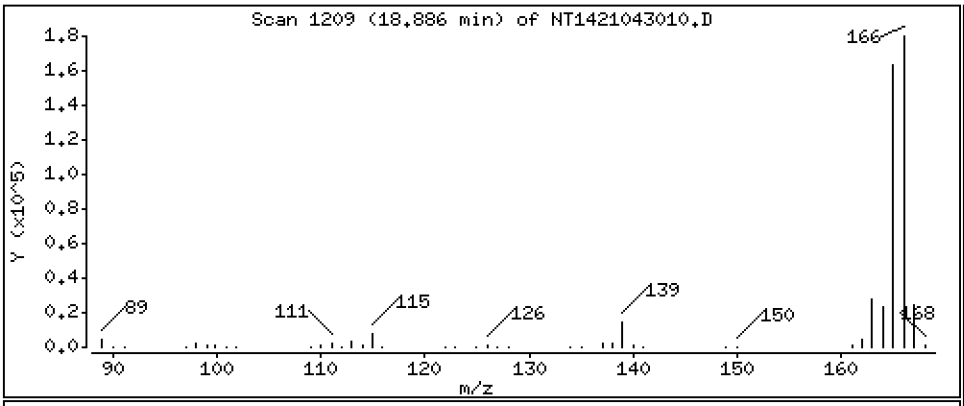
Operator: VTS

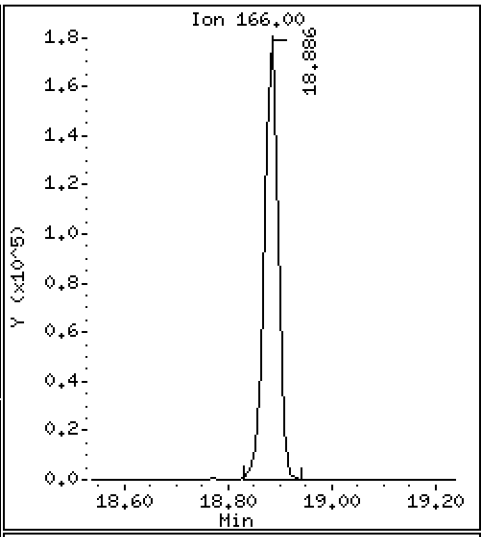
Column phase: Rxi-17Sil MS

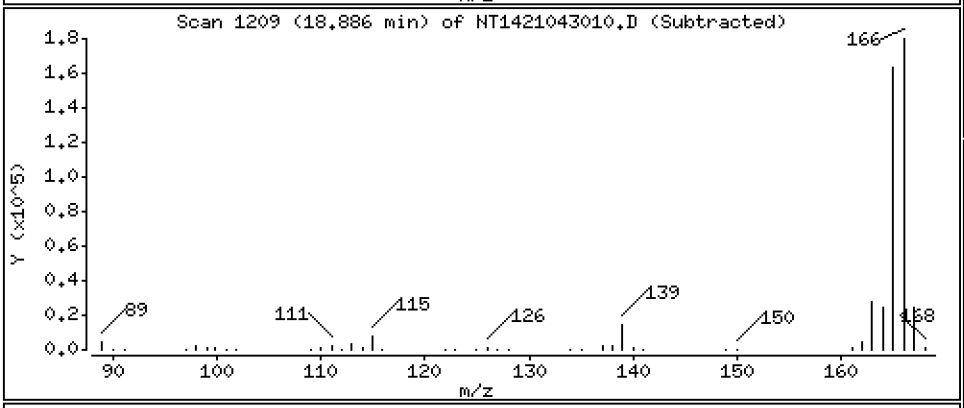
Column diameter: 0.25

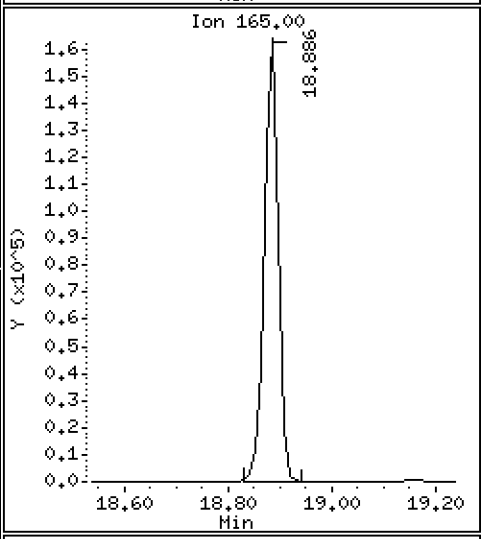
26 Fluorene

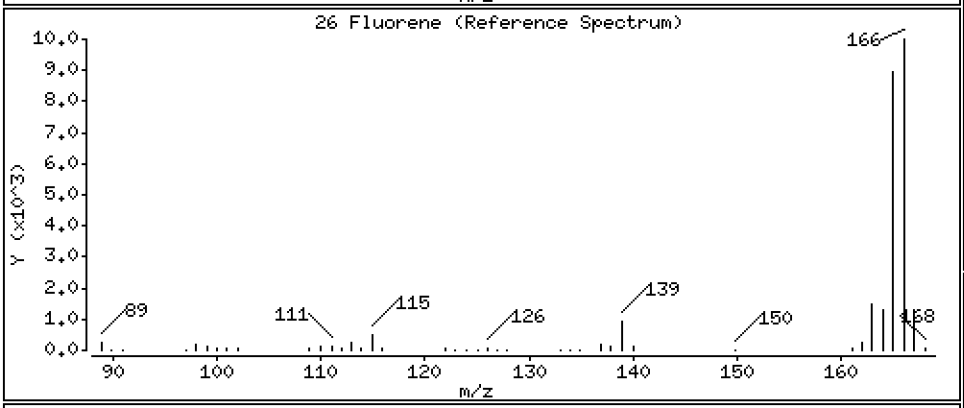
Concentration: 2.844 ug/mL

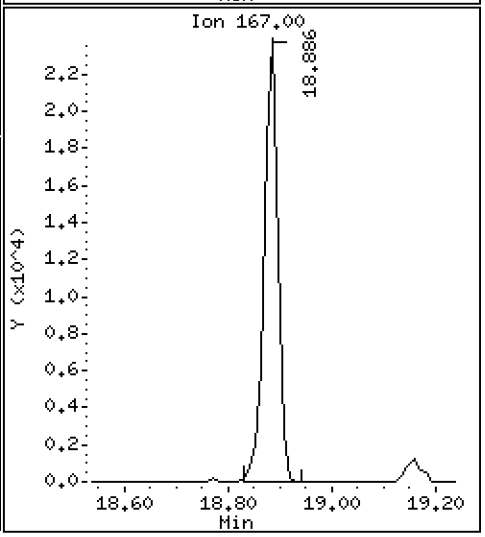


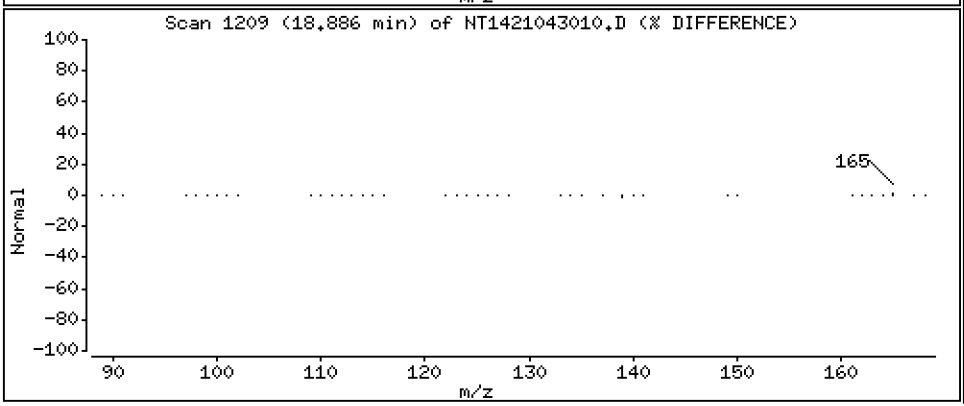












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

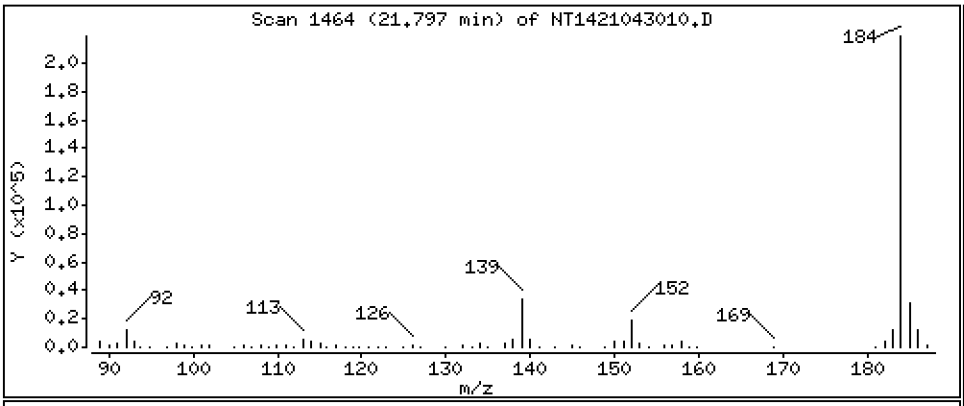
Operator: VTS

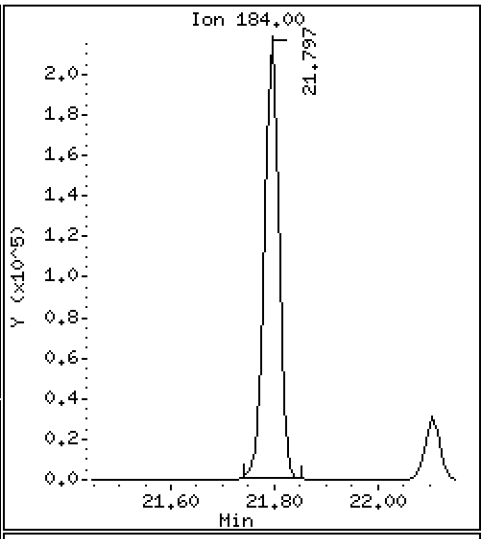
Column phase: Rxi-17Sil MS

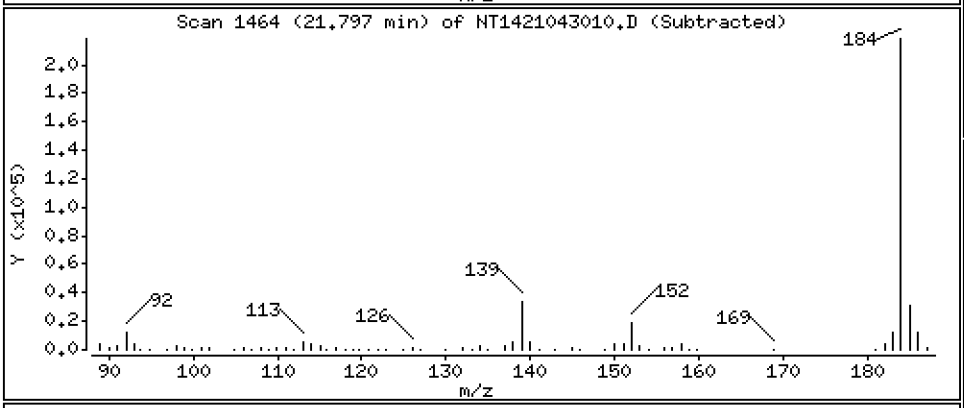
Column diameter: 0.25

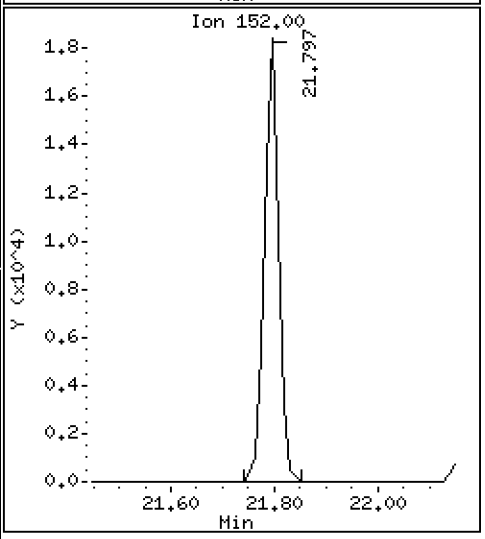
30 Dibenzothiophene

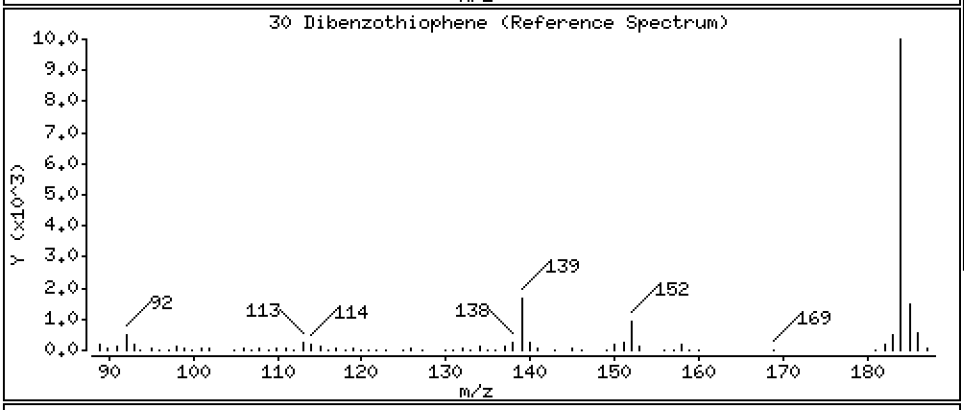
Concentration: 2.782 ug/mL

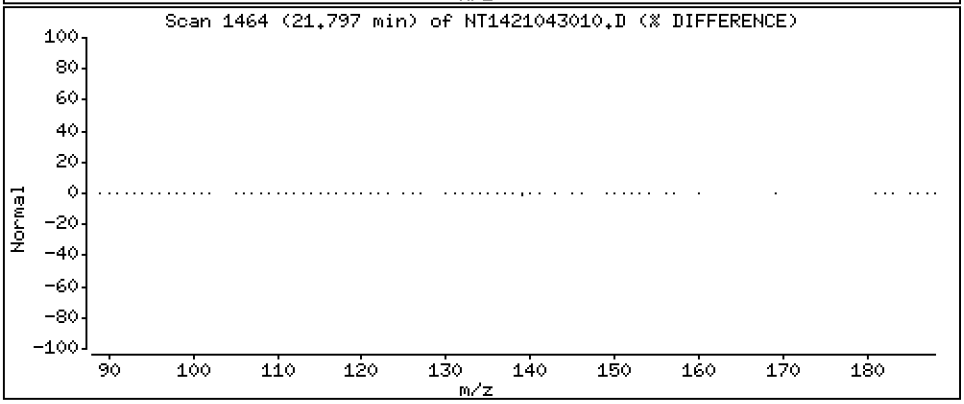












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

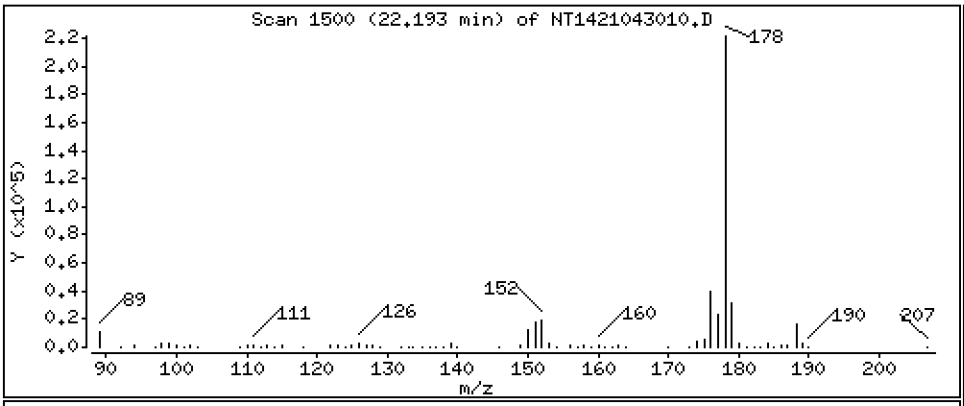
Operator: VTS

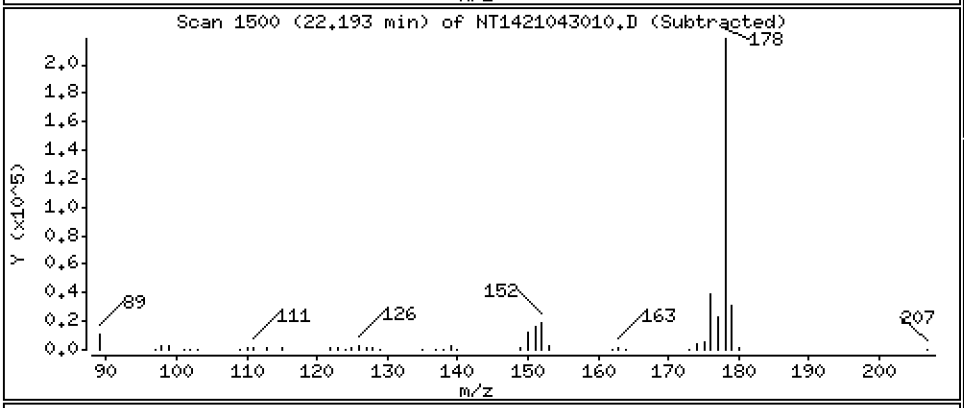
Column phase: Rxi-17Sil MS

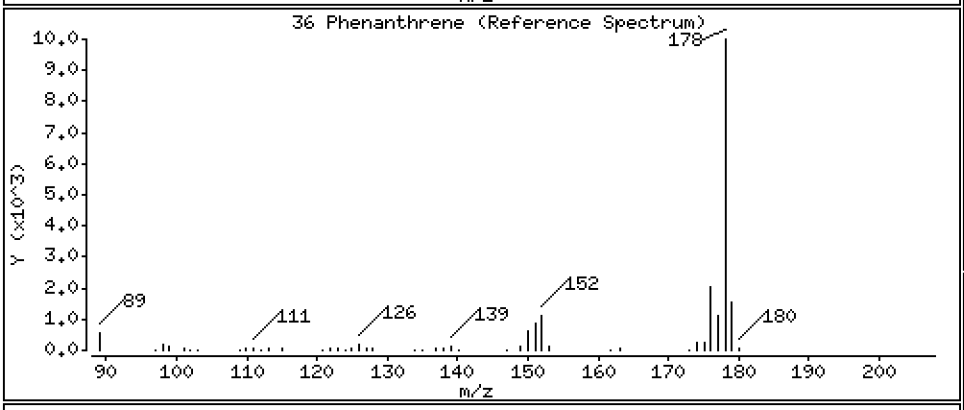
Column diameter: 0.25

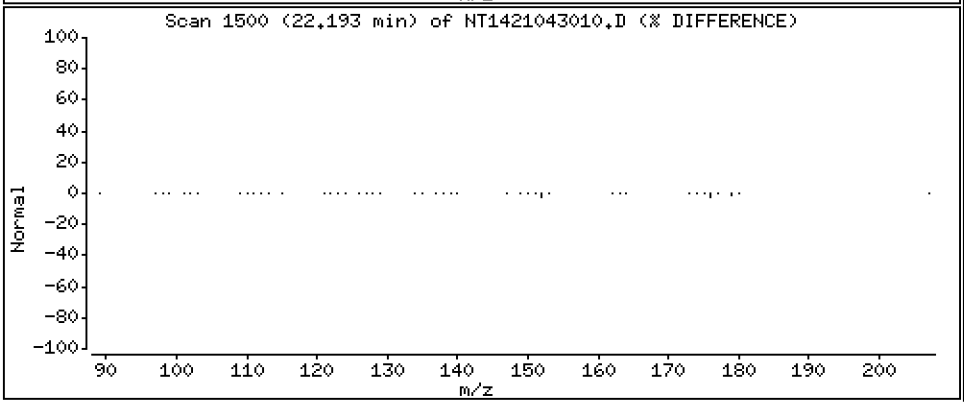
36 Phenanthrene

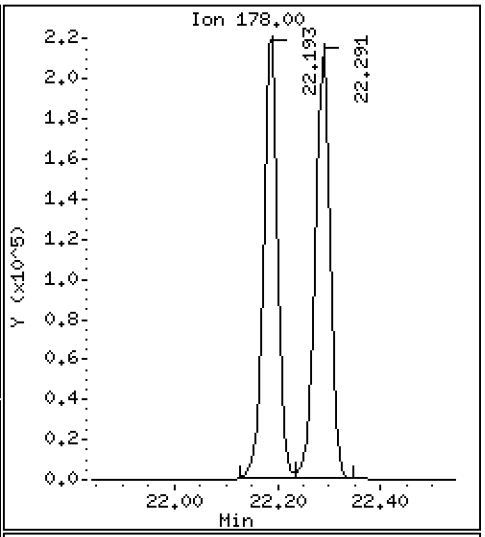
Concentration: 2.468 ug/mL

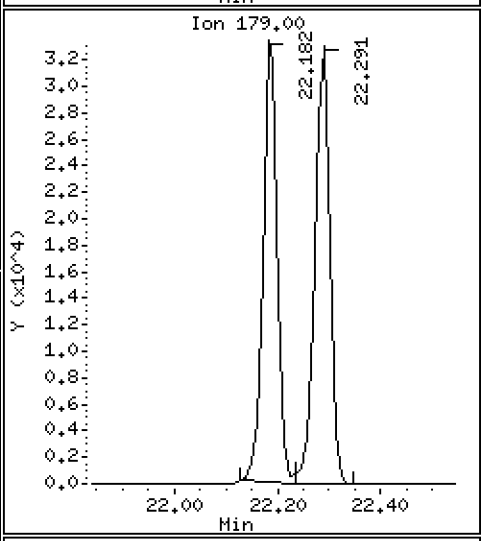


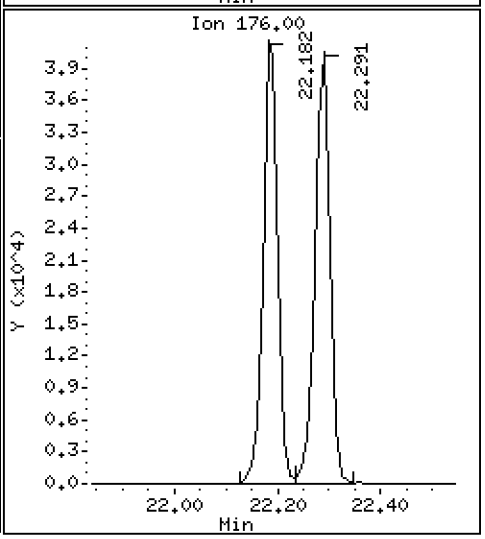












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

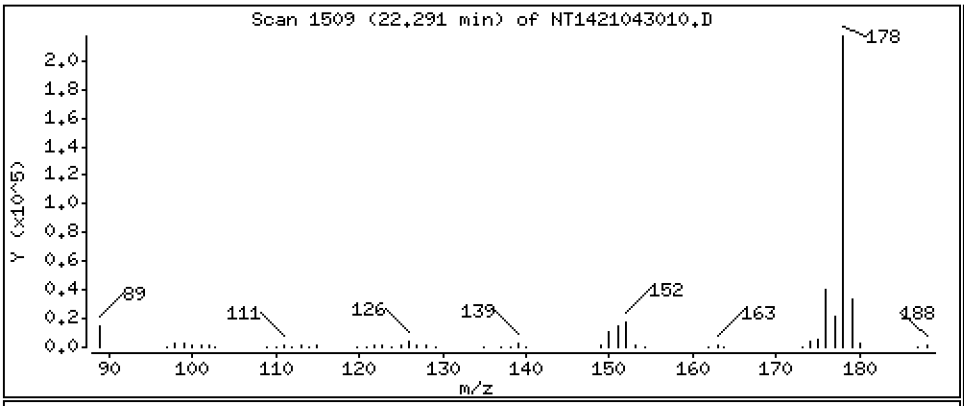
Operator: VTS

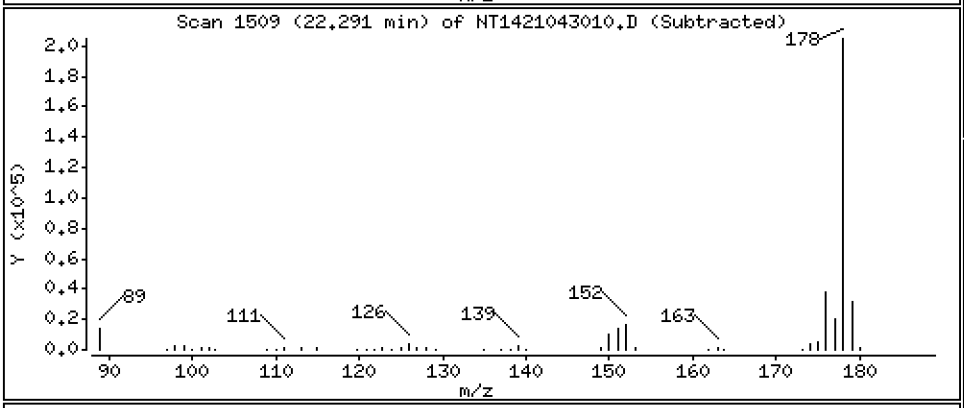
Column phase: Rxi-17Sil MS

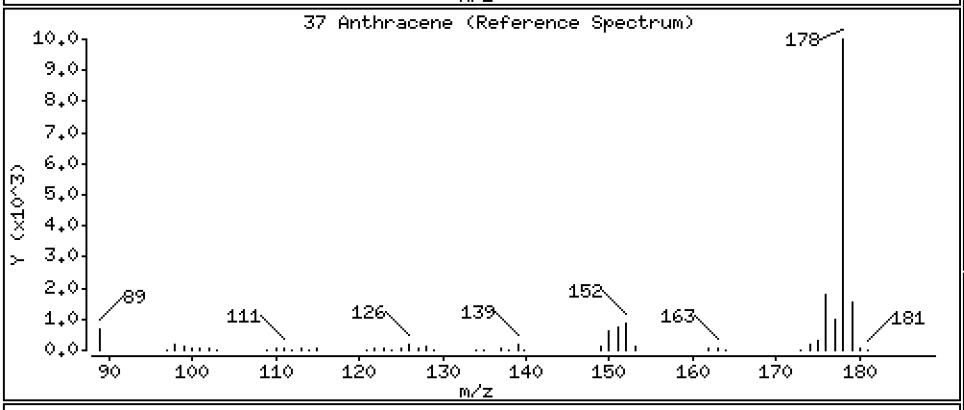
Column diameter: 0.25

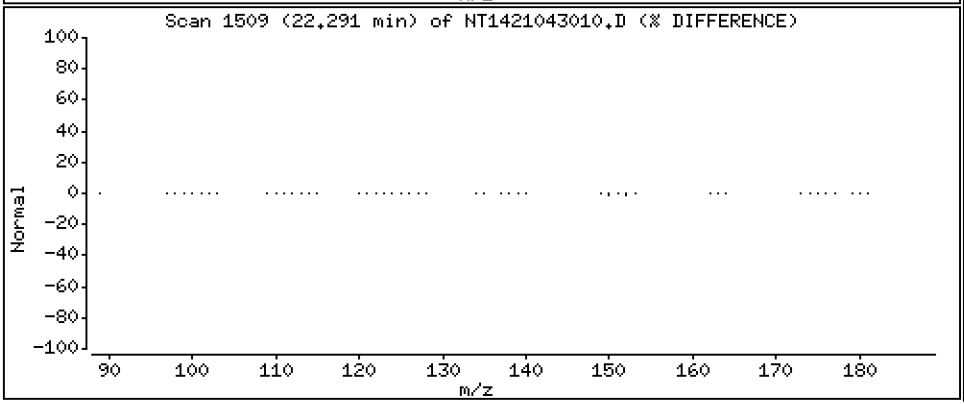
37 Anthracene

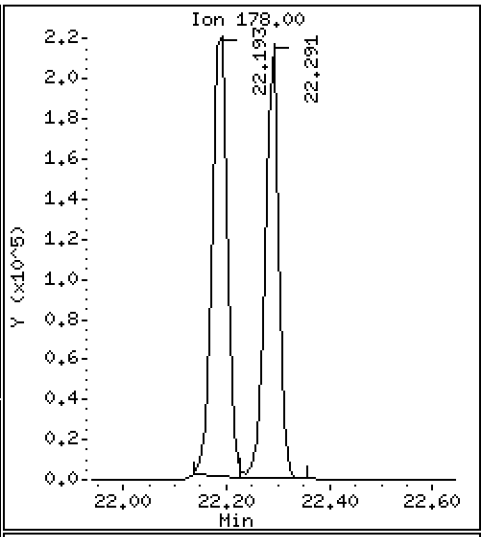
Concentration: 2.492 ug/mL

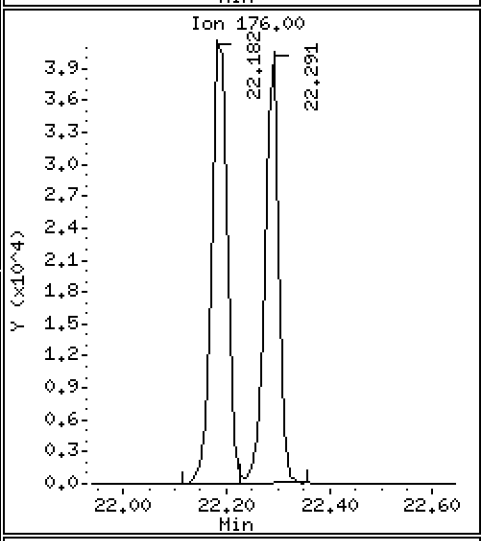


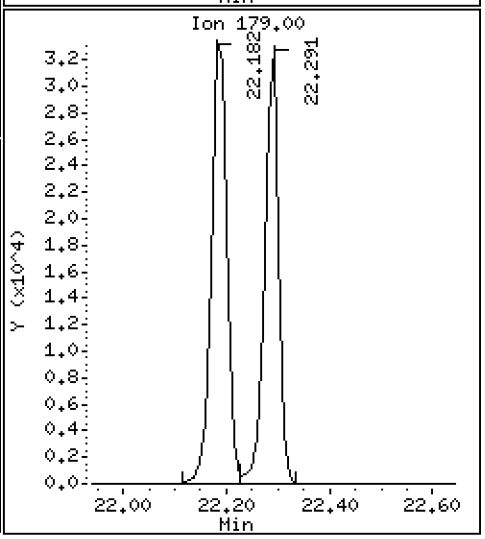












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

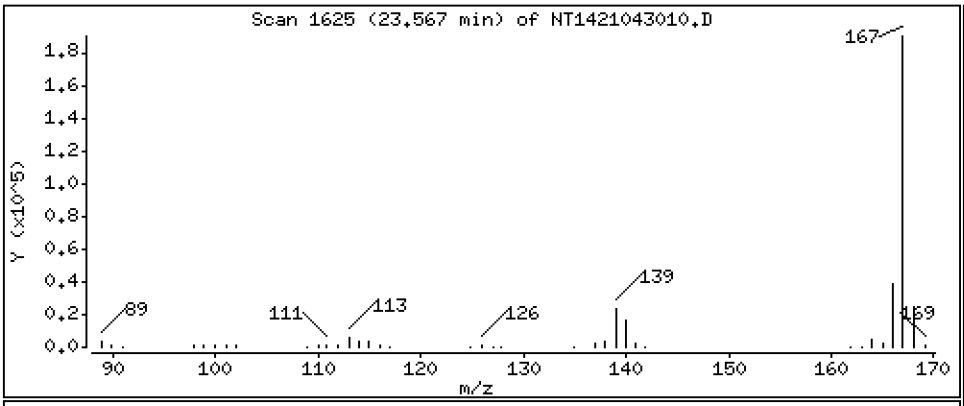
Operator: VTS

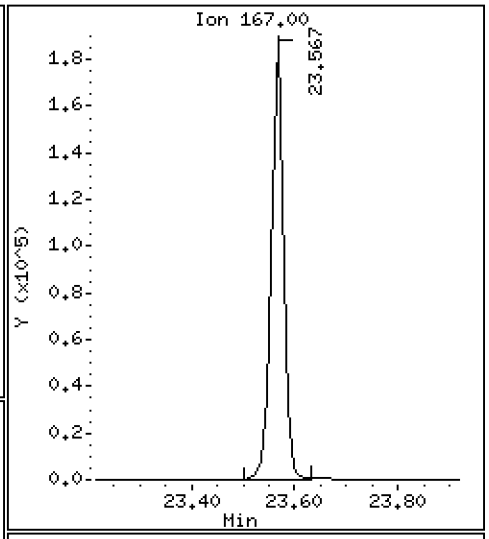
Column phase: Rxi-17Sil MS

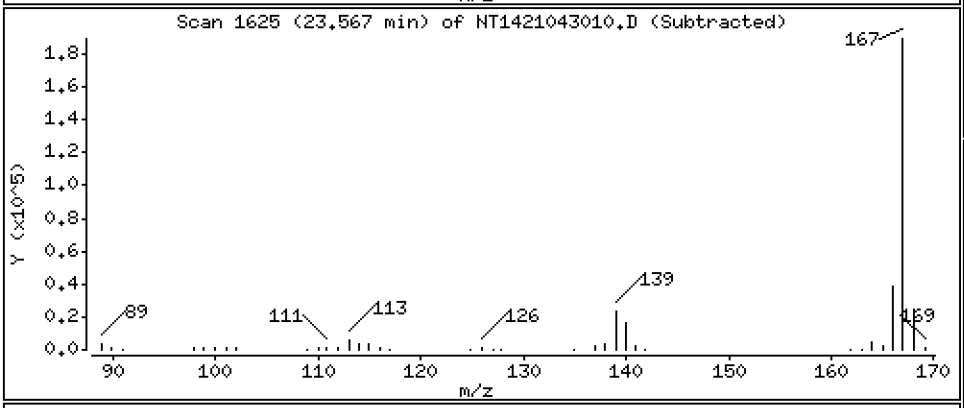
Column diameter: 0.25

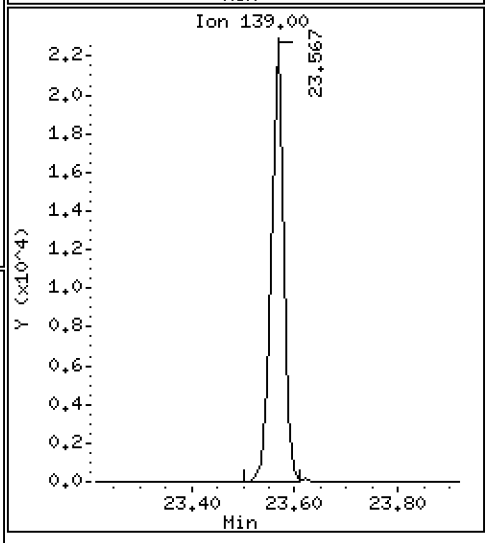
42 Carbazole

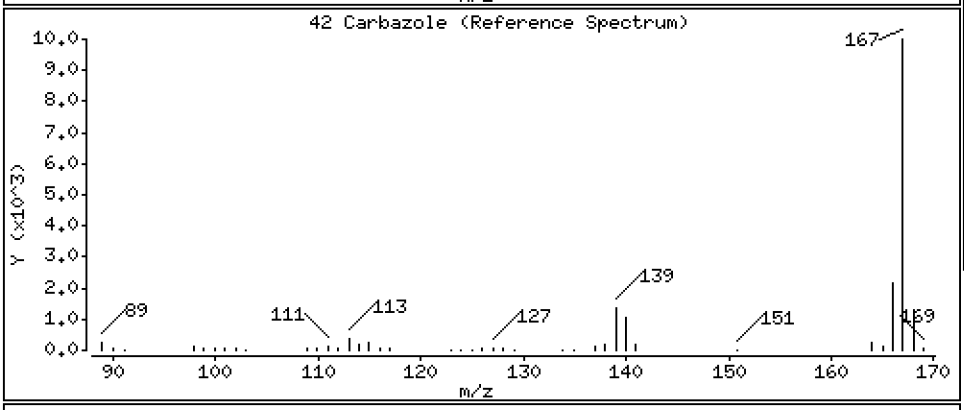
Concentration: 2.343 ug/mL

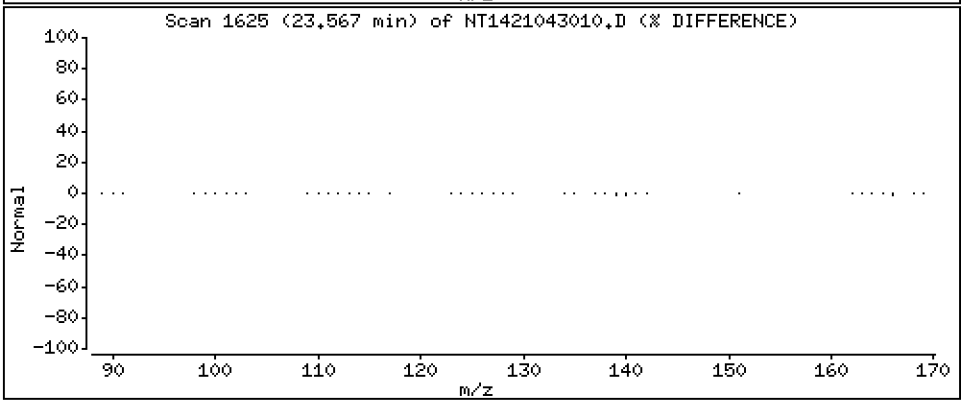












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

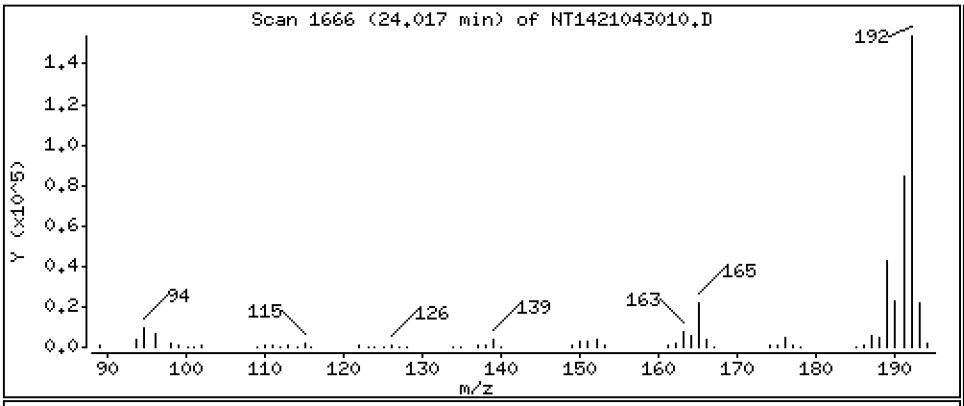
Operator: VTS

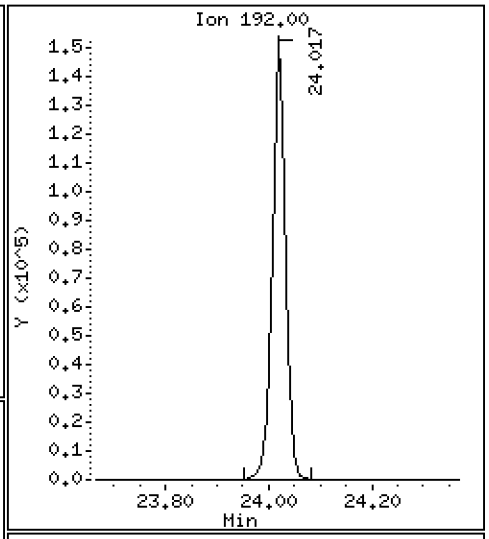
Column phase: Rxi-17Sil MS

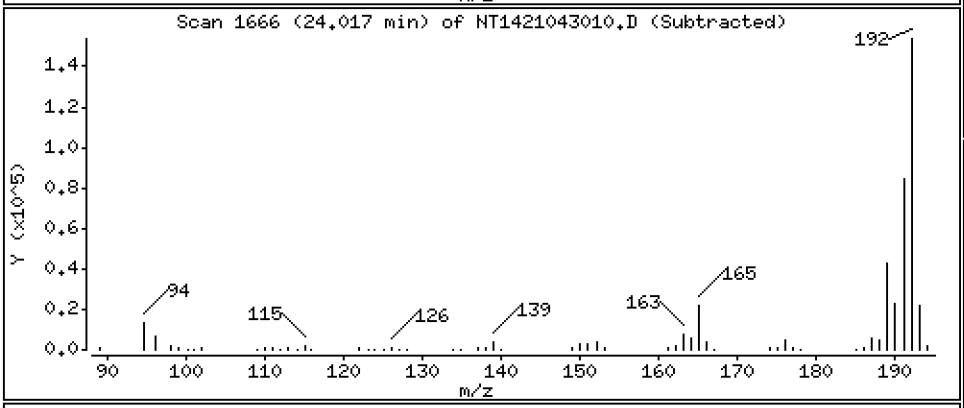
Column diameter: 0.25

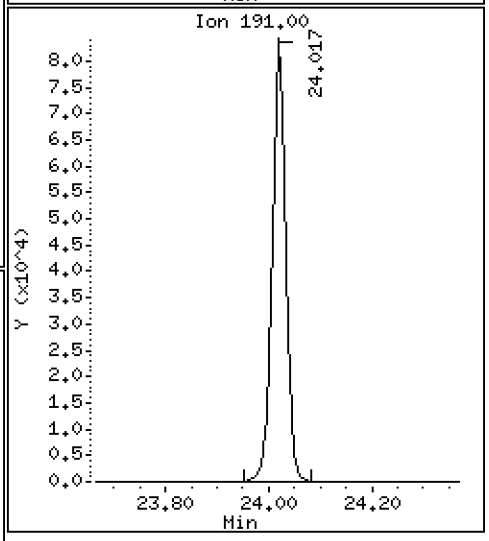
43 1-Methylphenanthrene

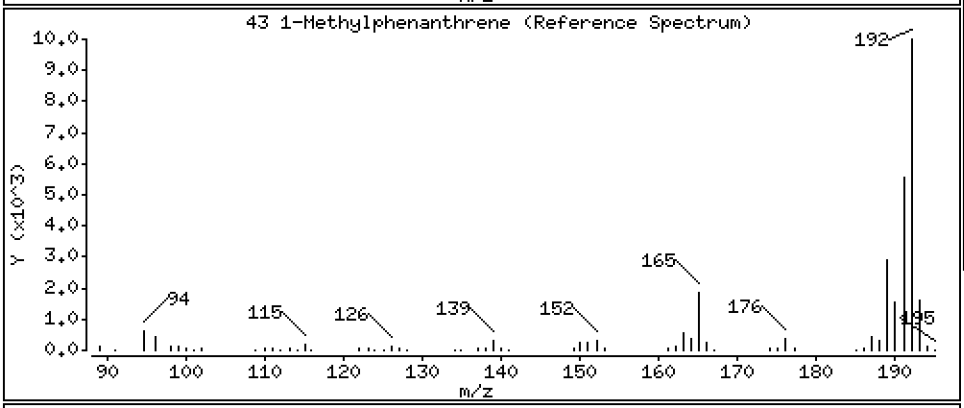
Concentration: 2.594 ug/mL

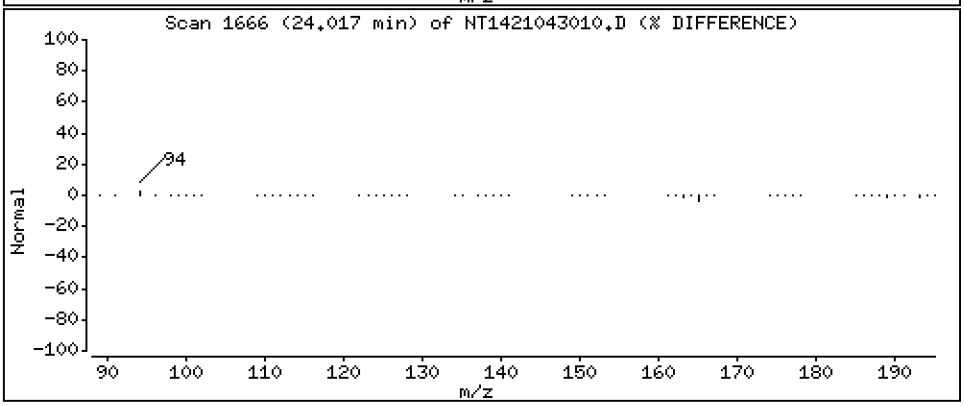












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

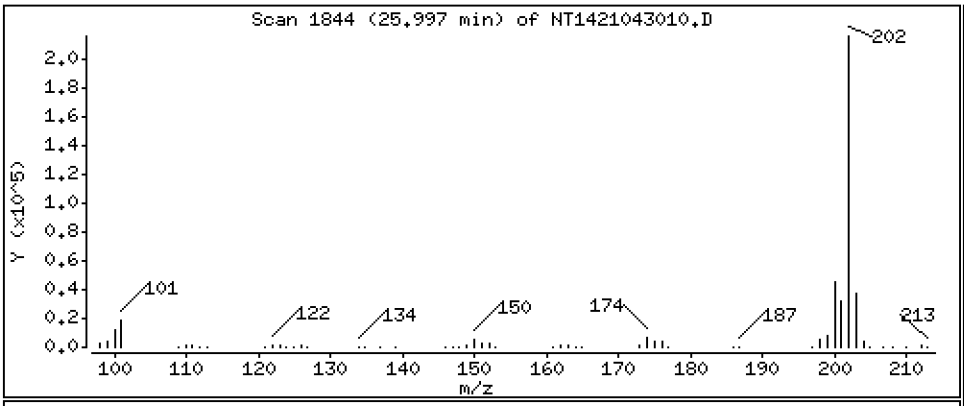
Operator: VTS

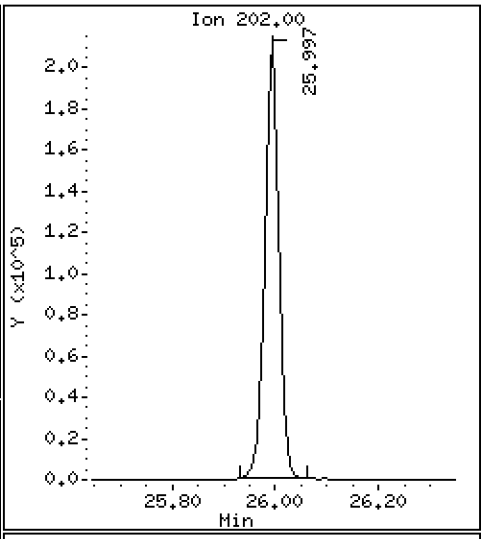
Column phase: Rxi-17Sil MS

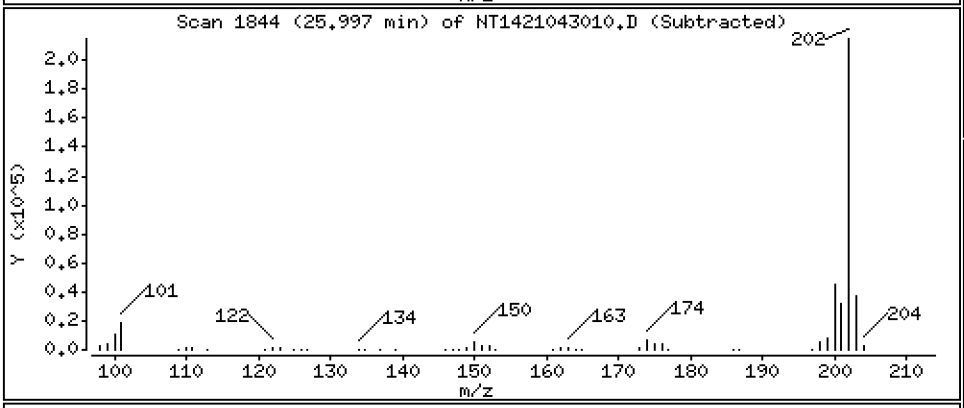
Column diameter: 0.25

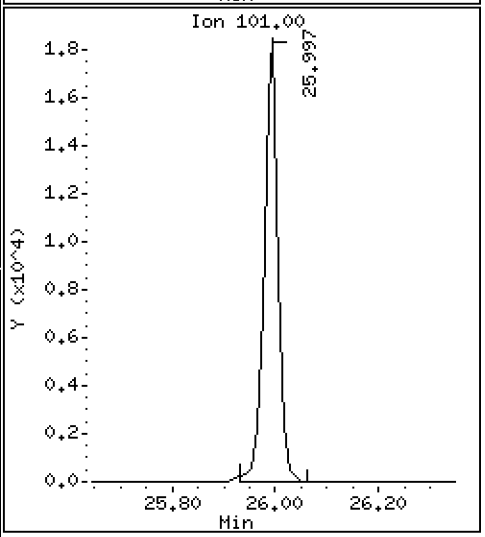
44 Fluoranthene

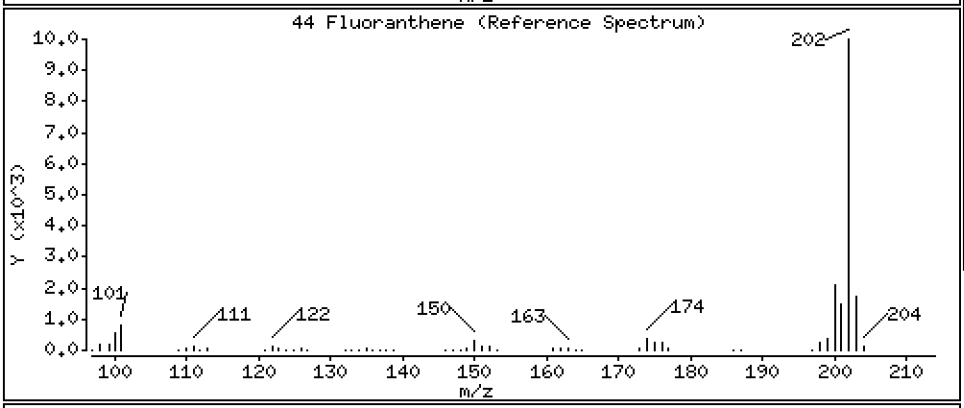
Concentration: 2.634 ug/mL

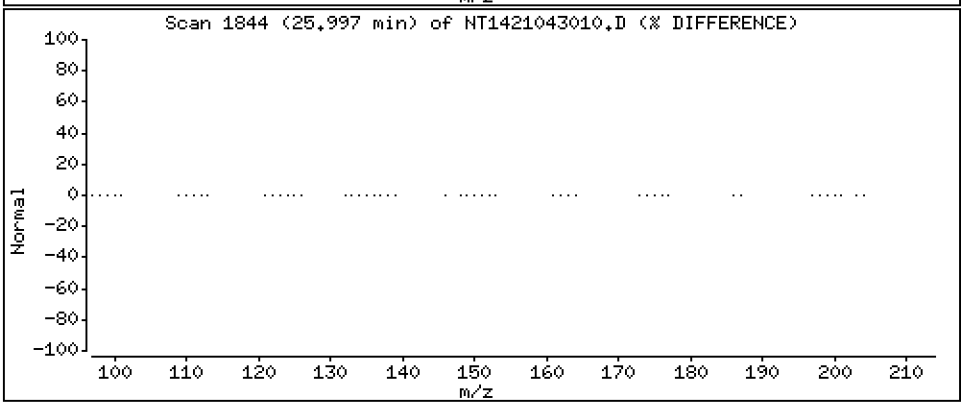












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

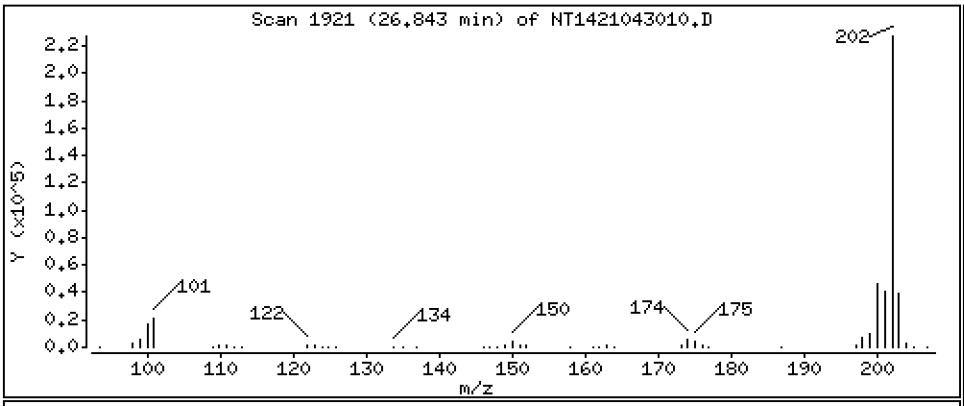
Operator: VTS

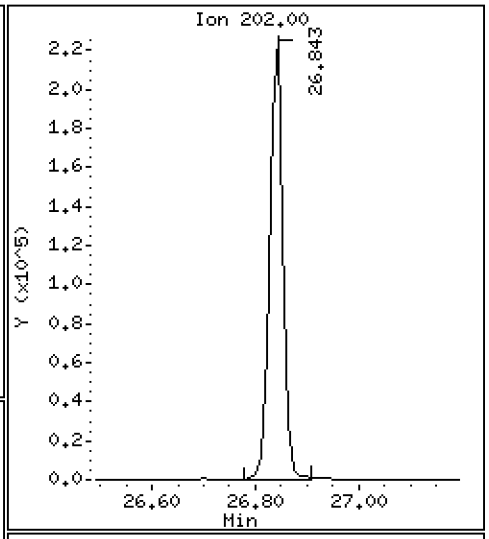
Column phase: Rxi-17Sil MS

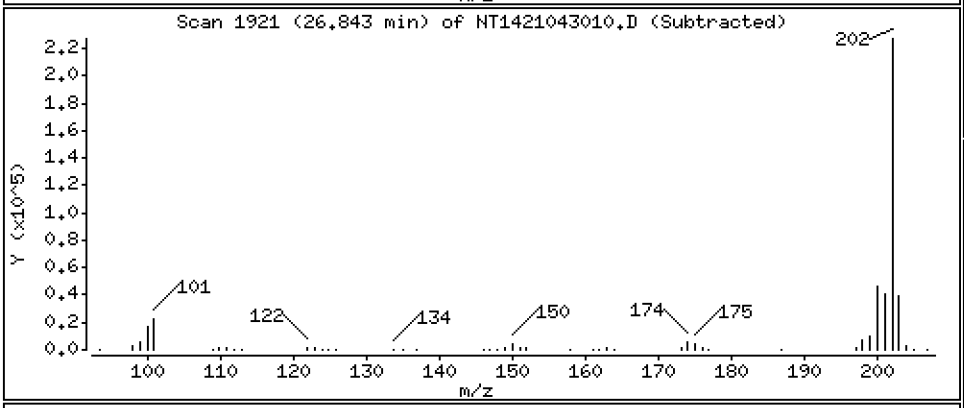
Column diameter: 0.25

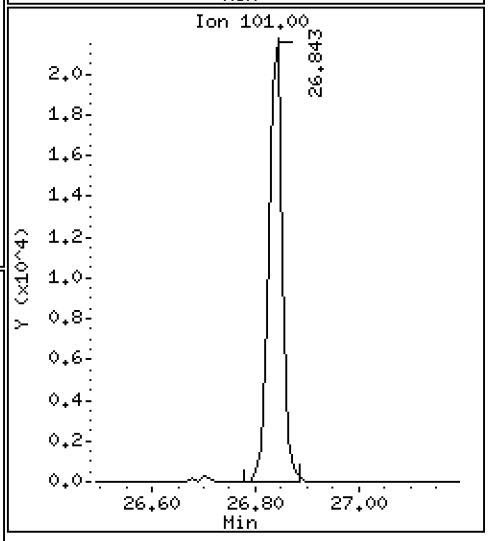
46 Pyrene

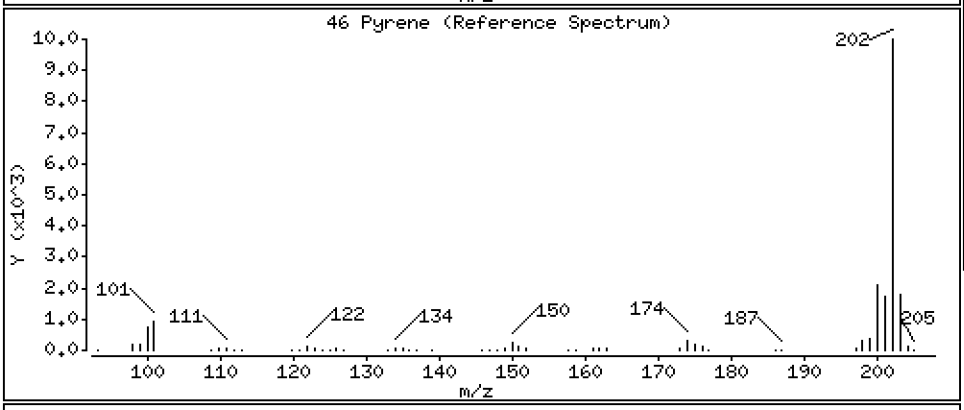
Concentration: 2.527 ug/mL

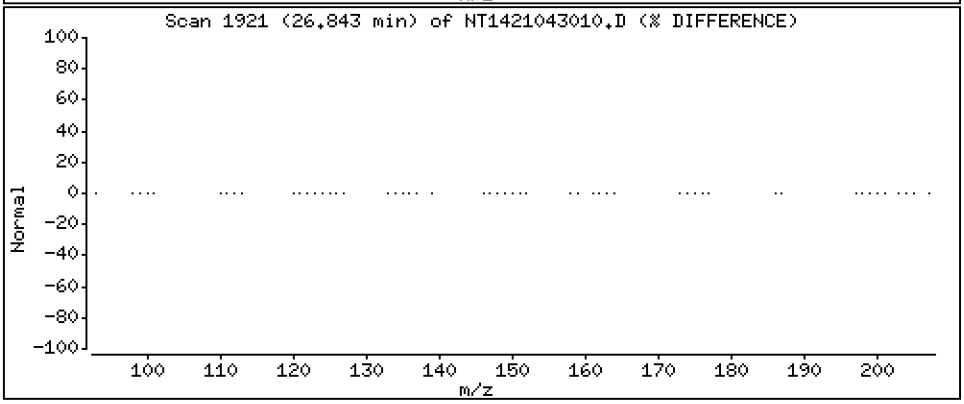












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

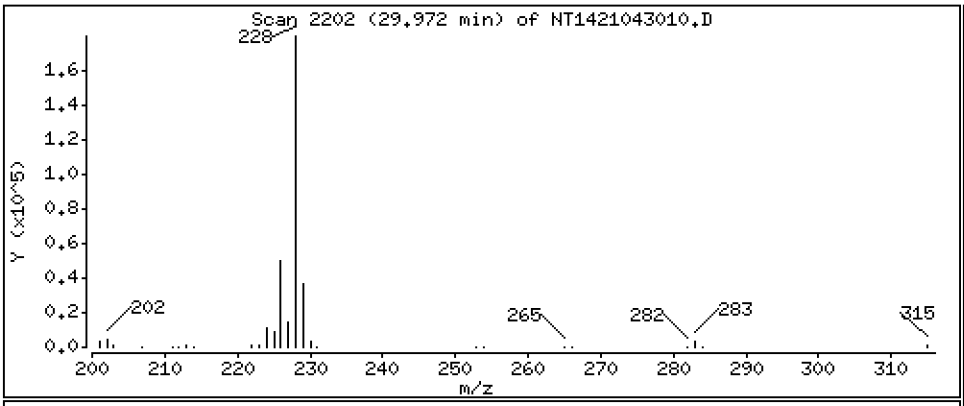
Operator: VTS

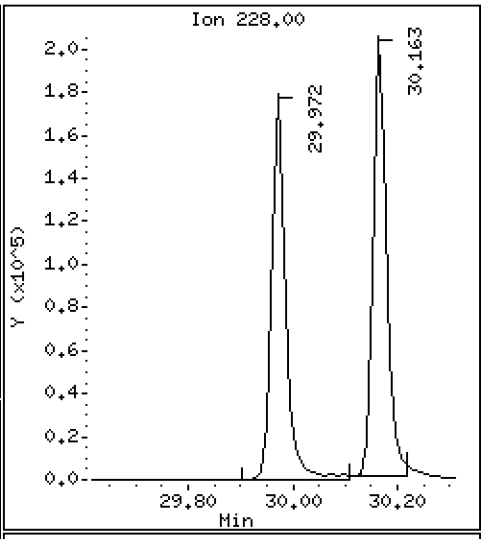
Column phase: Rxi-17Sil MS

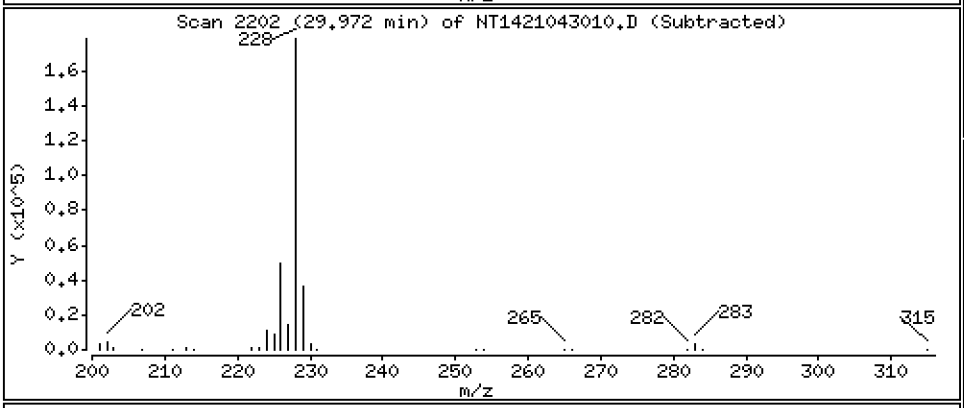
Column diameter: 0.25

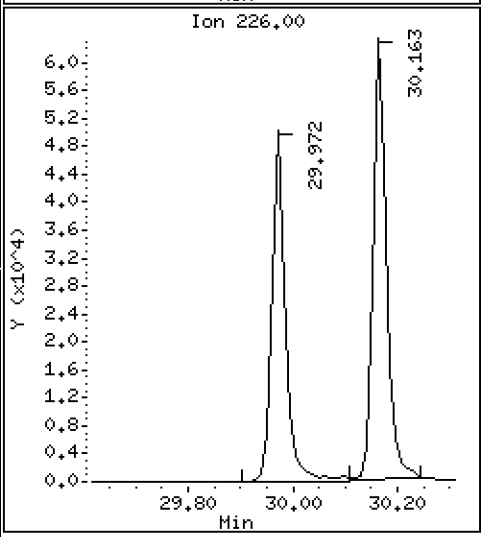
55 Benzo(a)anthracene

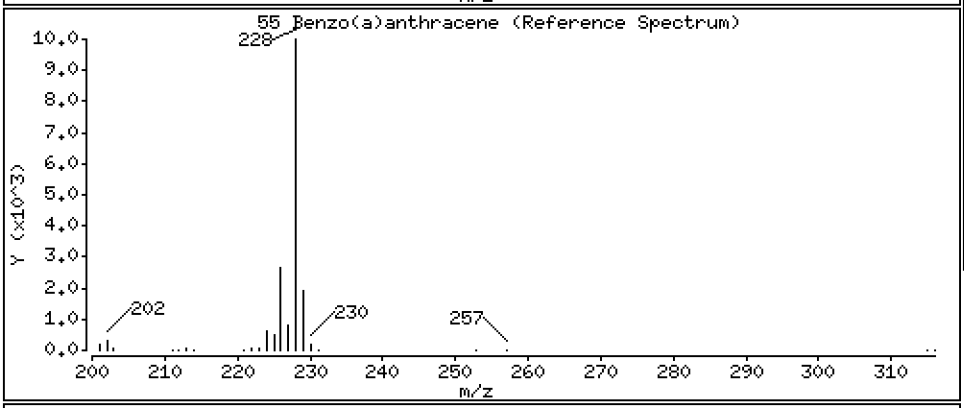
Concentration: 2.278 ug/mL

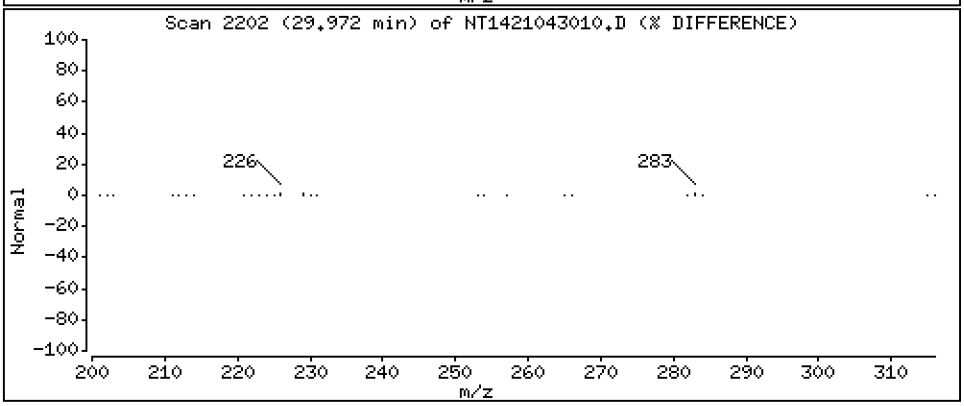












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

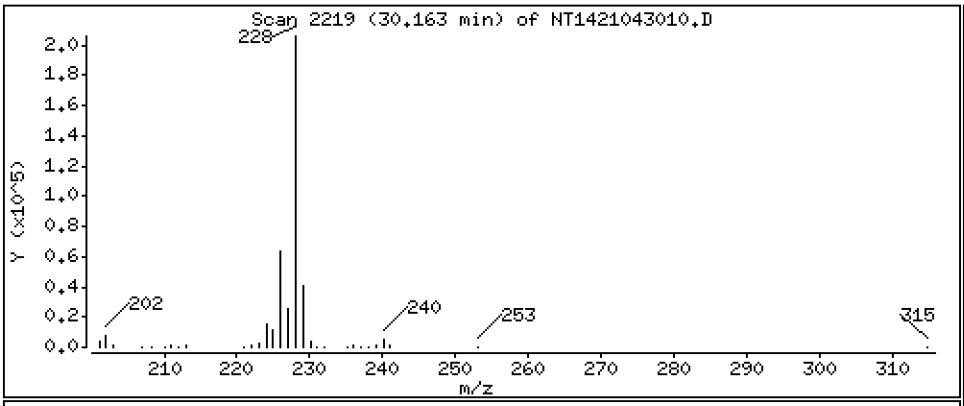
Operator: VTS

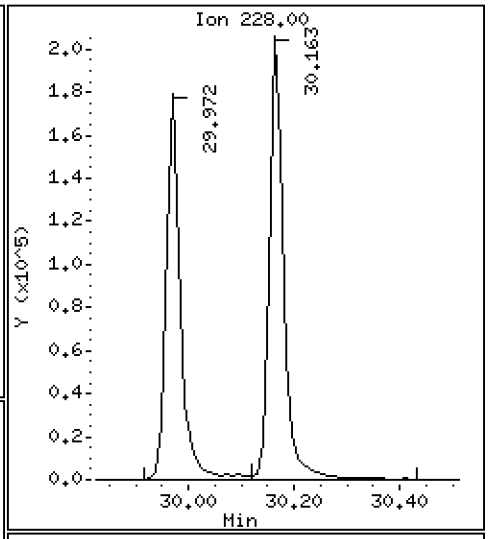
Column phase: Rxi-17Sil MS

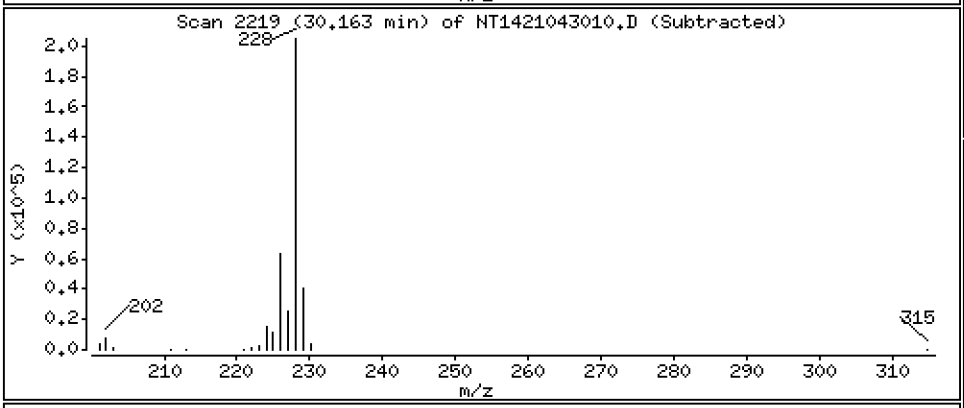
Column diameter: 0.25

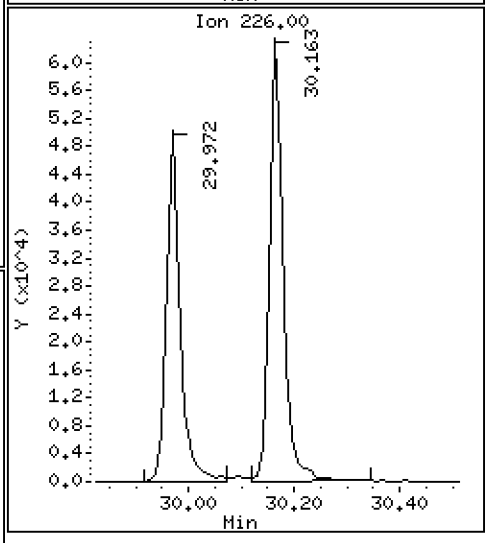
57 Chrysene

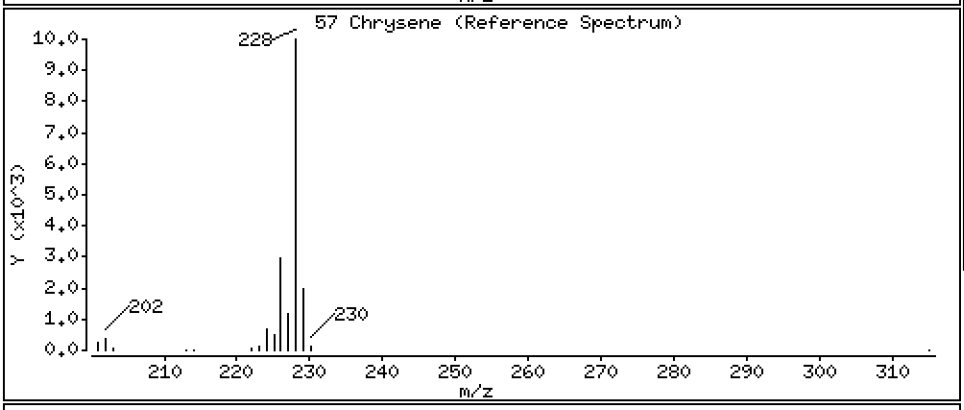
Concentration: 2.574 ug/mL

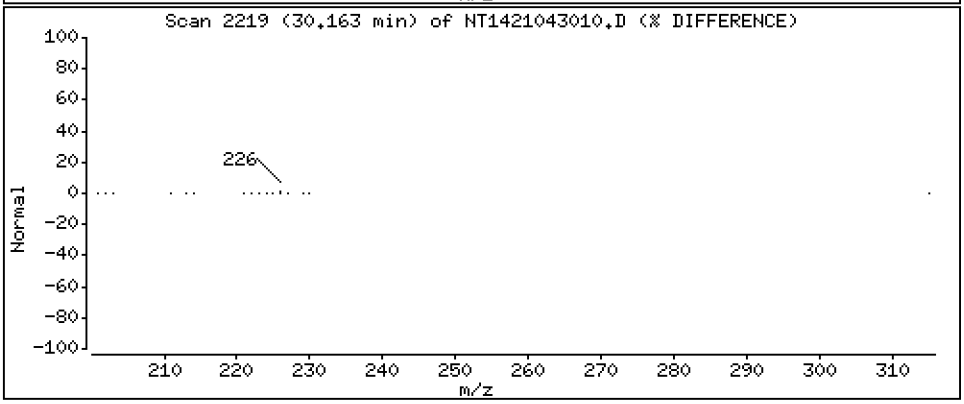












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

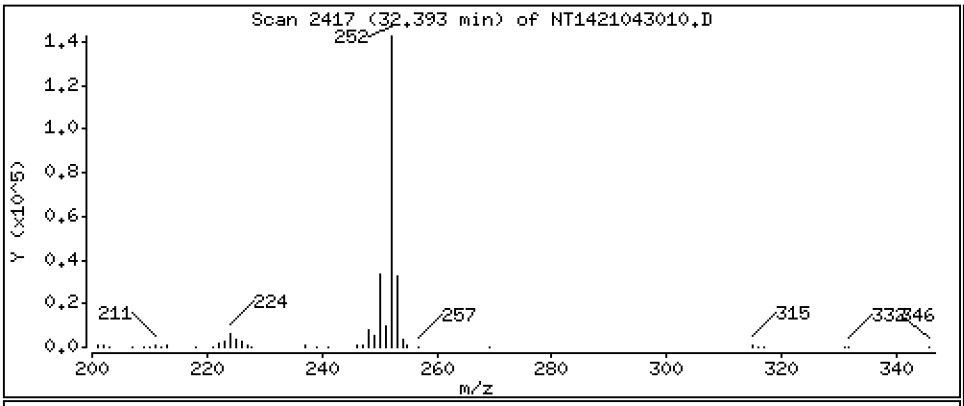
Operator: VTS

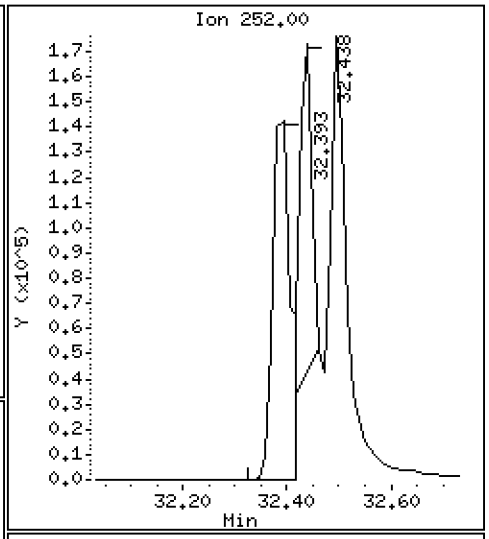
Column phase: Rxi-17Sil MS

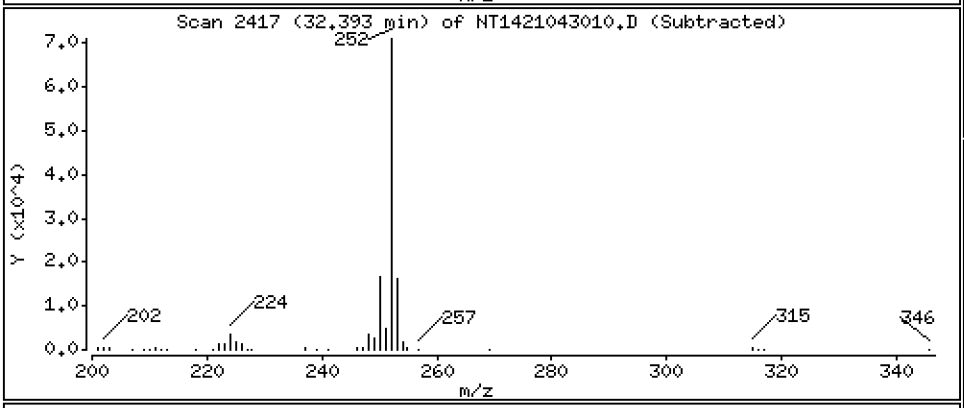
Column diameter: 0.25

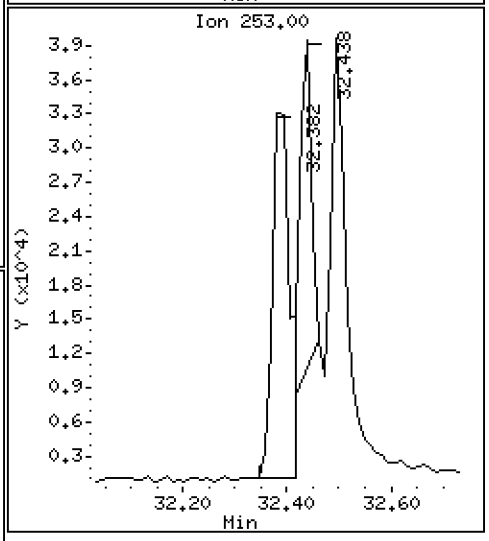
62 Benzo(b)fluoranthene

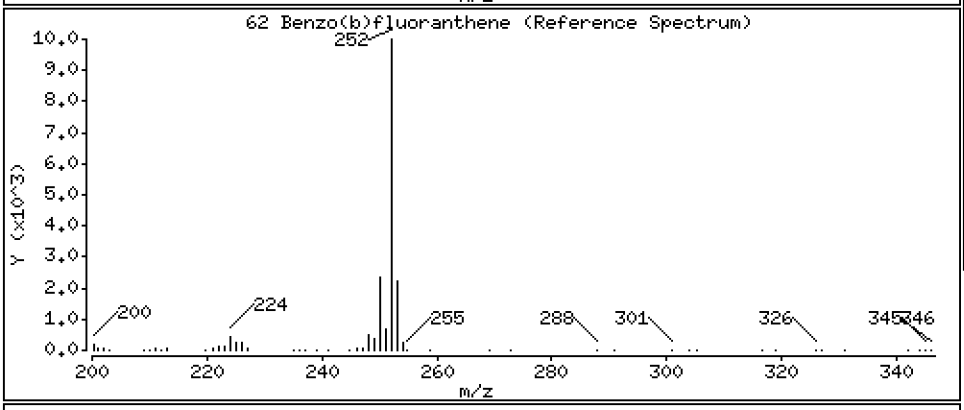
Concentration: 2.326 ug/mL

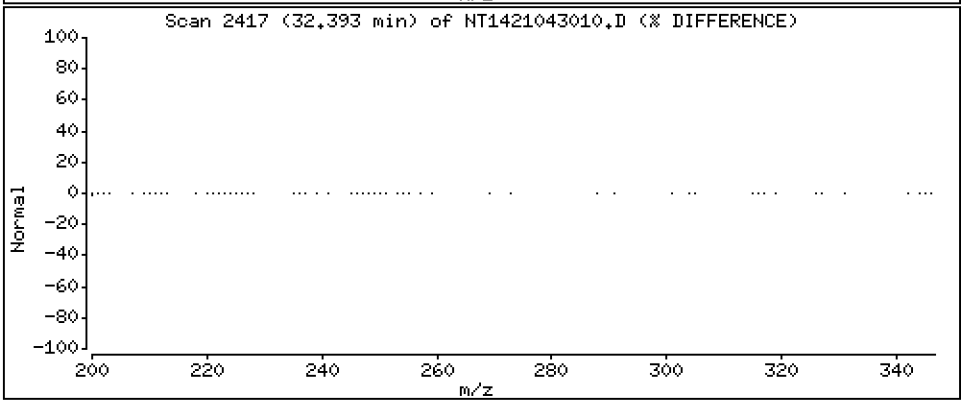












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

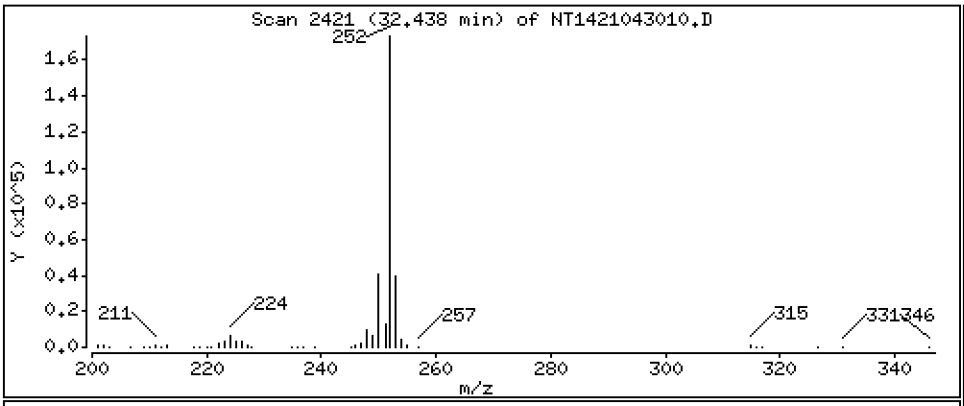
Operator: VTS

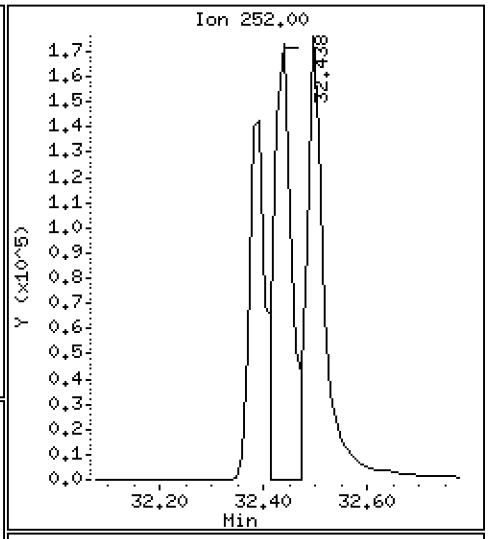
Column phase: Rxi-17Sil MS

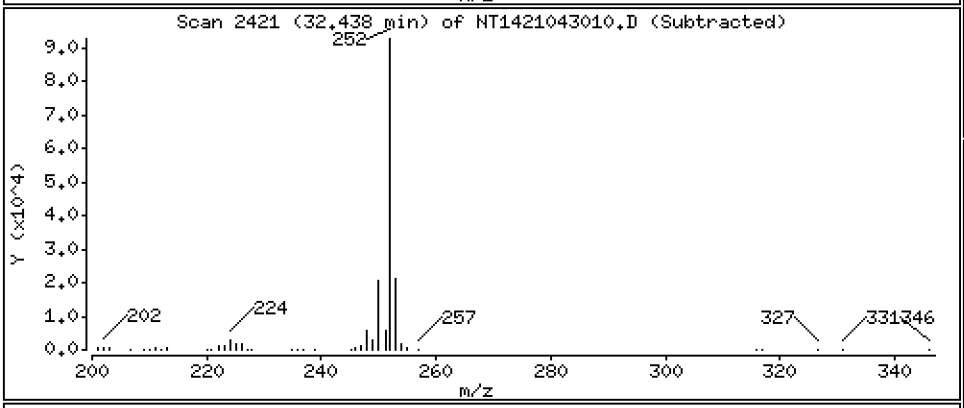
Column diameter: 0.25

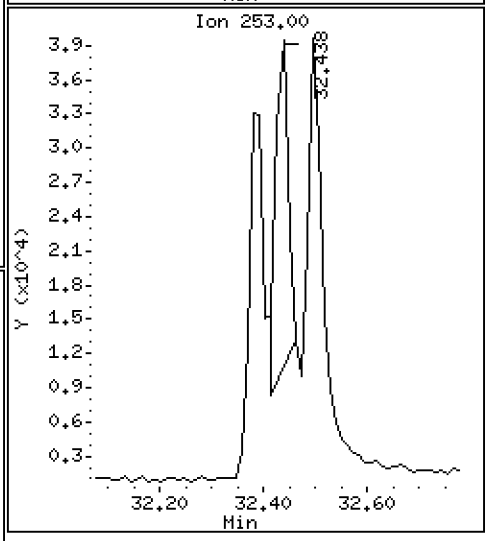
63 Benzo(k)fluoranthene

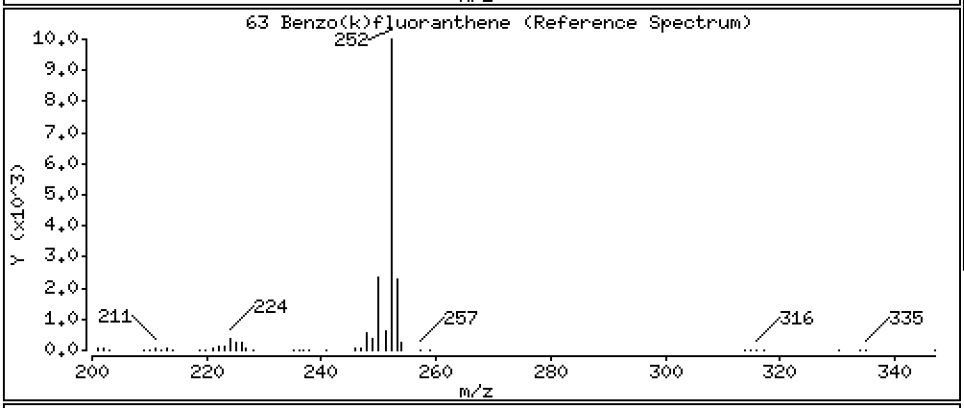
Concentration: 2.304 ug/mL

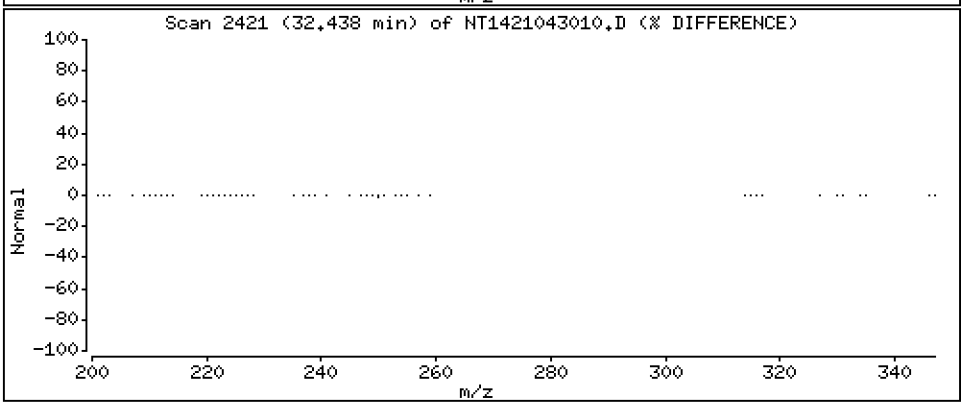












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

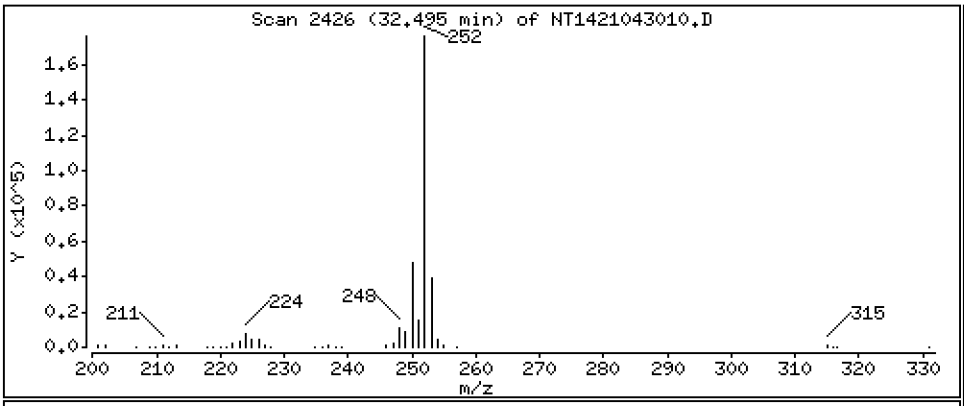
Operator: VTS

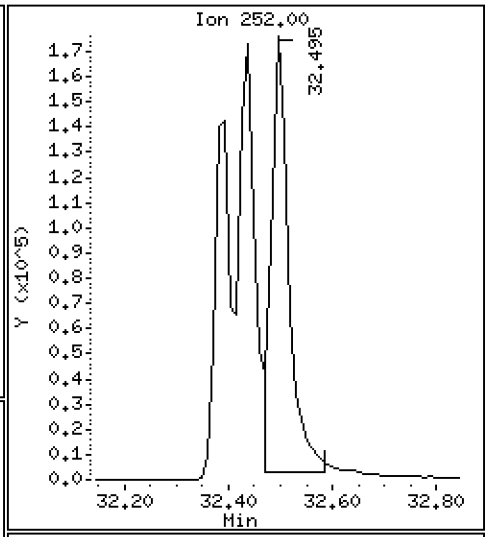
Column phase: Rxi-17Sil MS

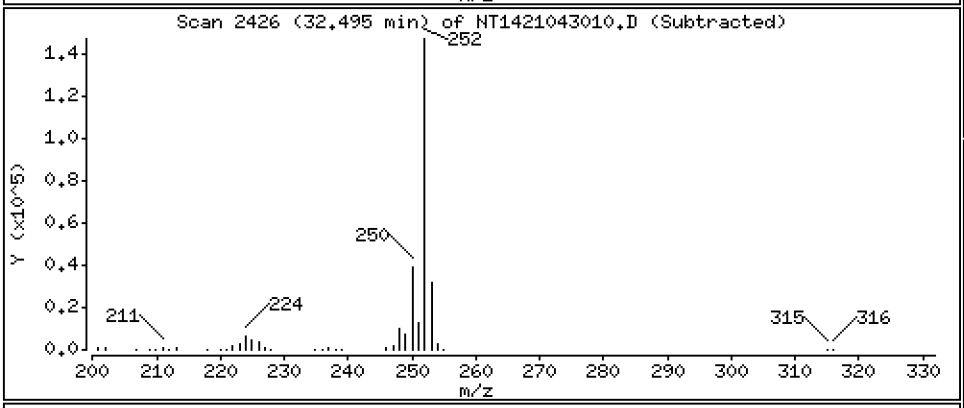
Column diameter: 0.25

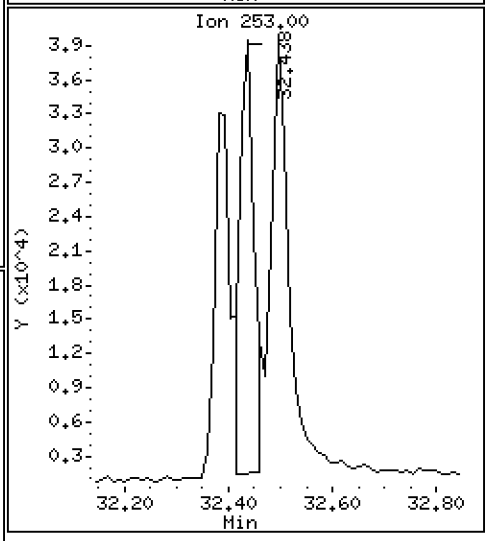
293 Benzo(j)fluoranthene

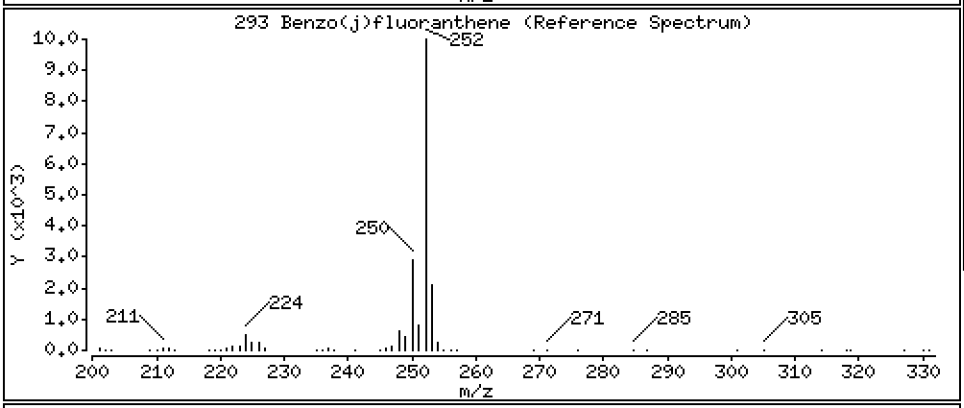
Concentration: 2.516 ug/mL

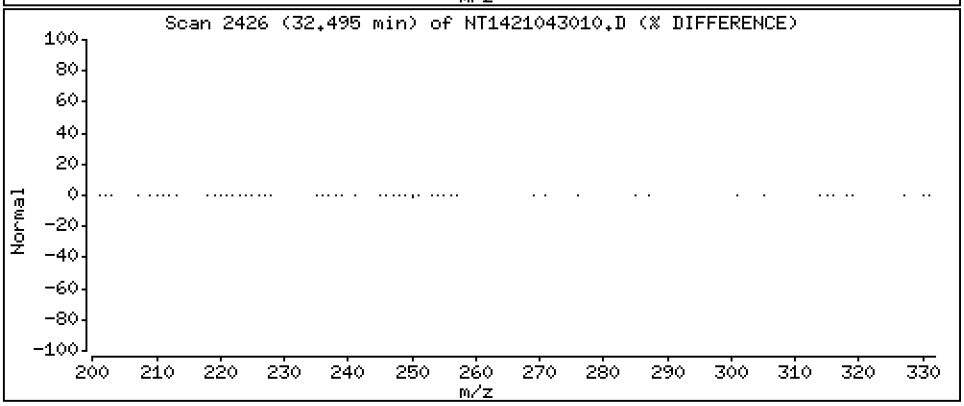












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

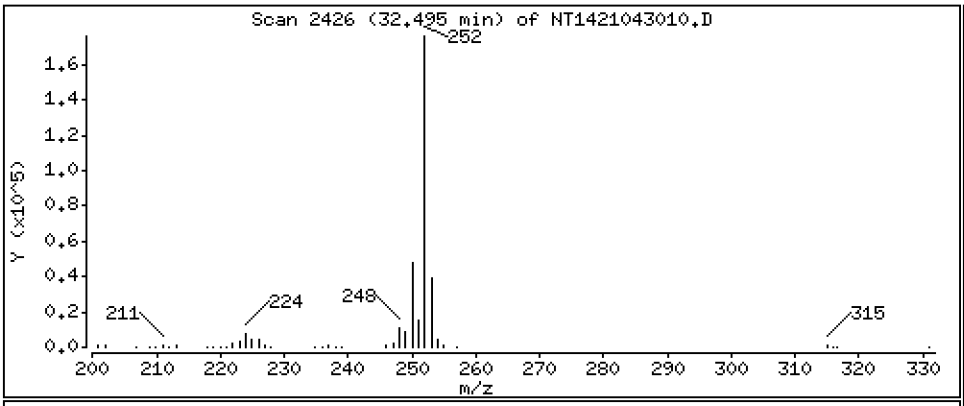
Operator: VTS

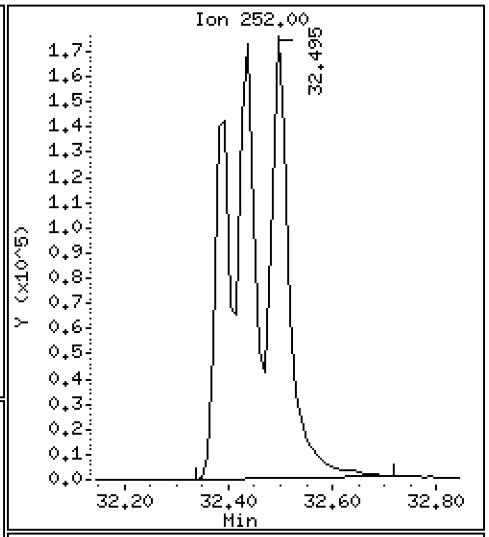
Column phase: Rxi-17Sil MS

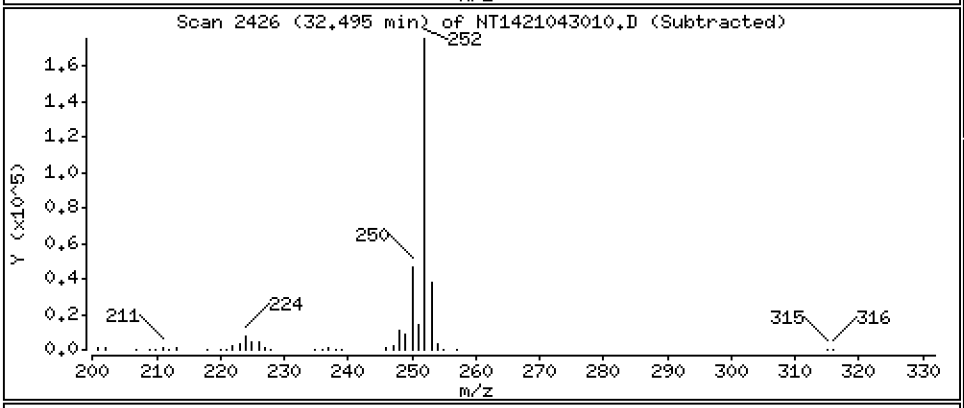
Column diameter: 0.25

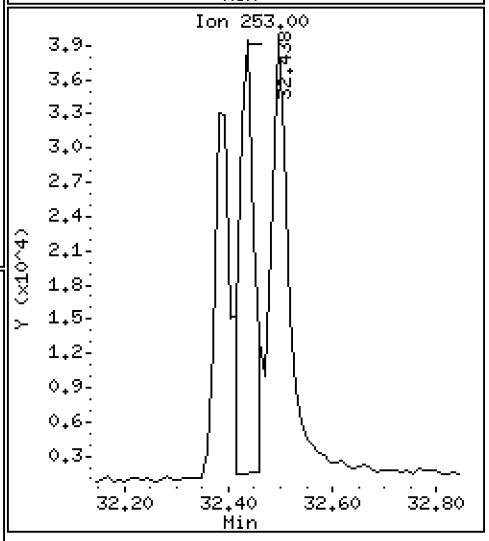
246 Total Benzofluoranthenes

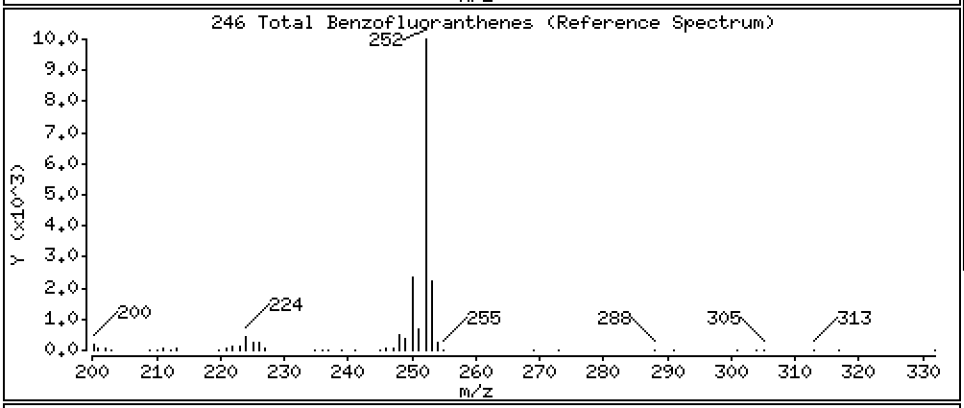
Concentration: 6.960 ug/mL

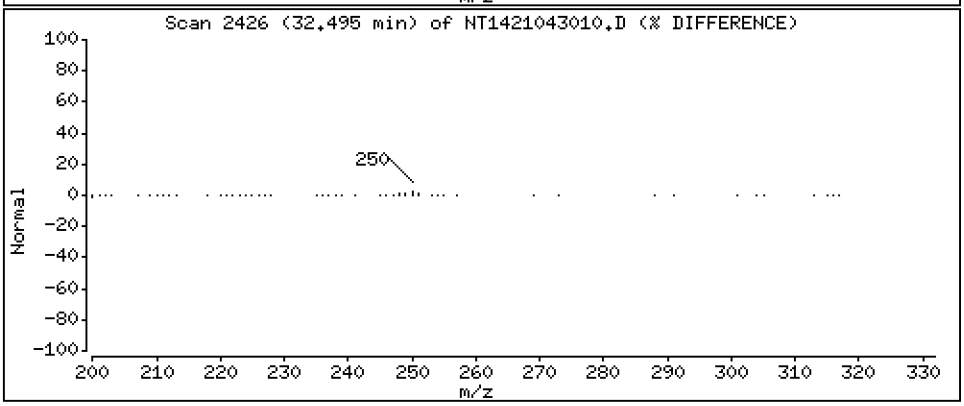












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

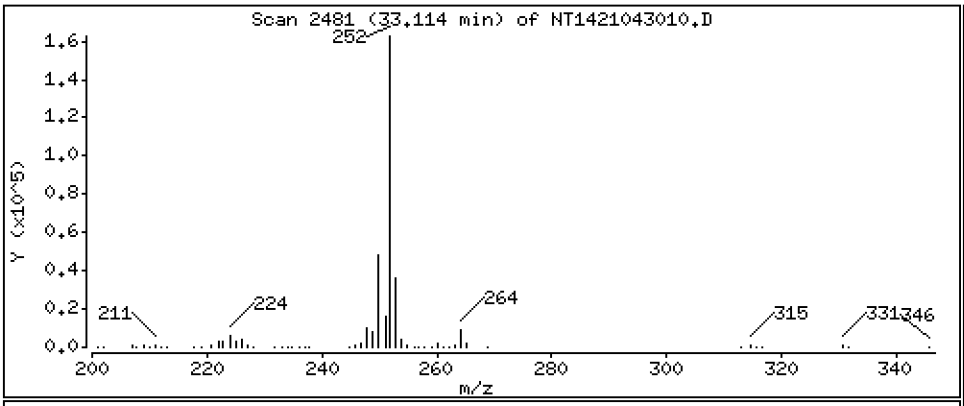
Operator: VTS

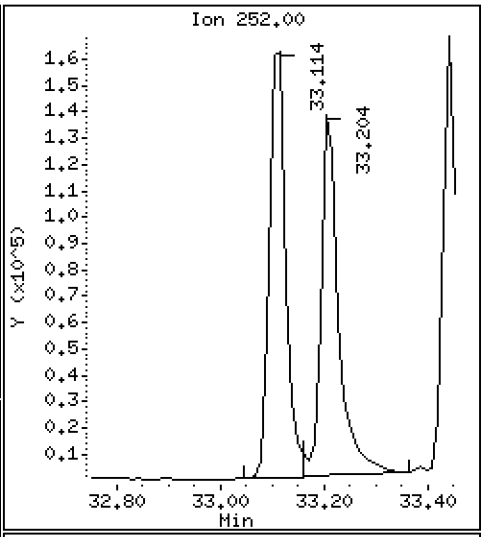
Column phase: Rxi-17Sil MS

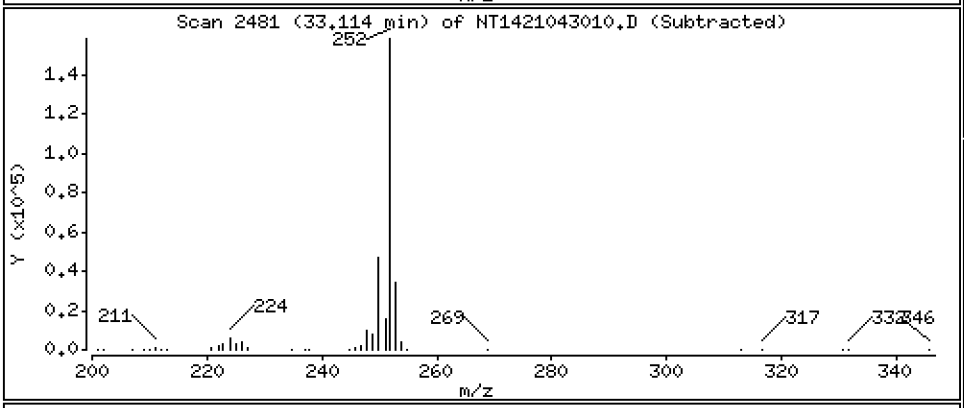
Column diameter: 0.25

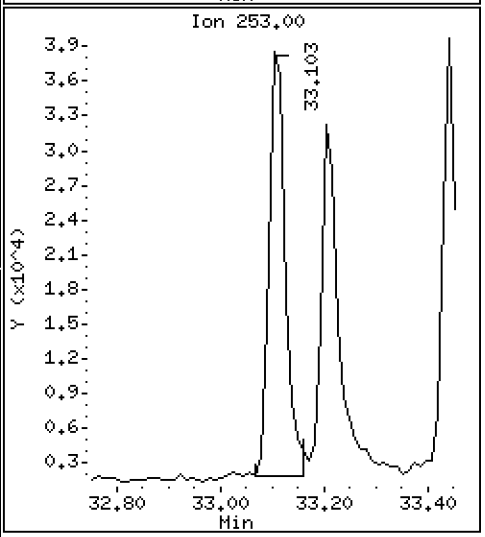
64 Benzo(e)pyrene

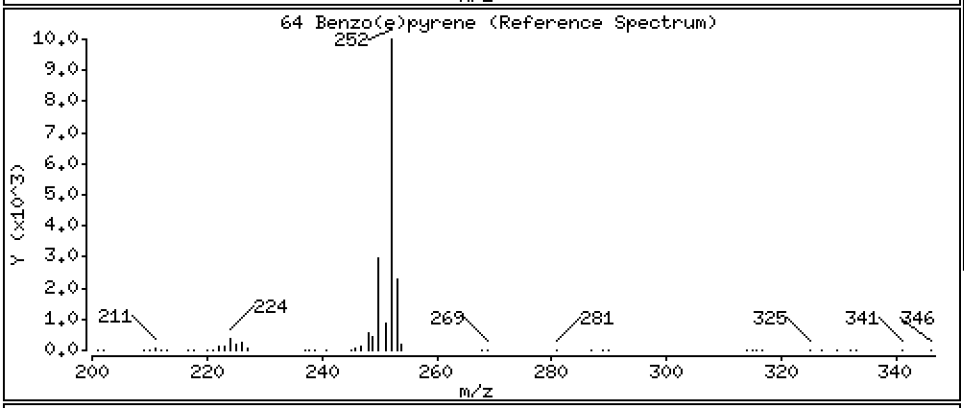
Concentration: 2.454 ug/mL

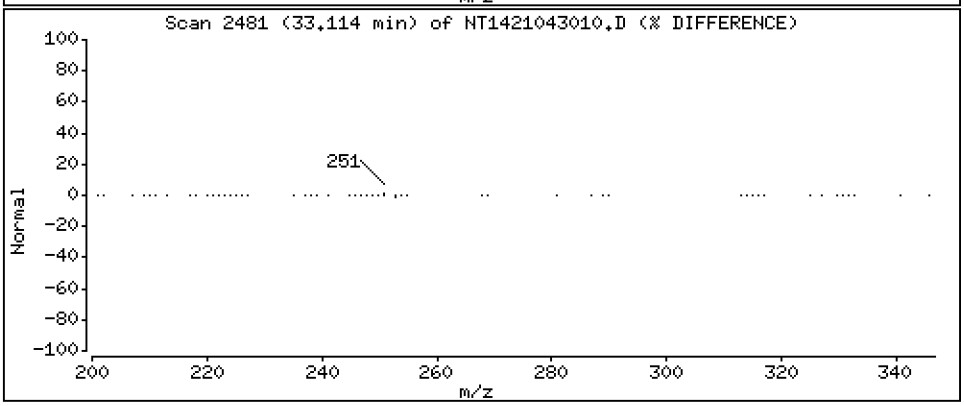












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

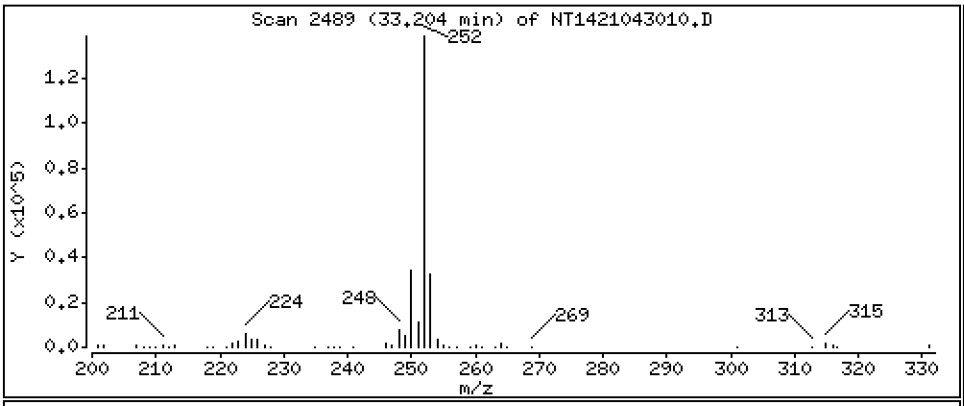
Operator: VTS

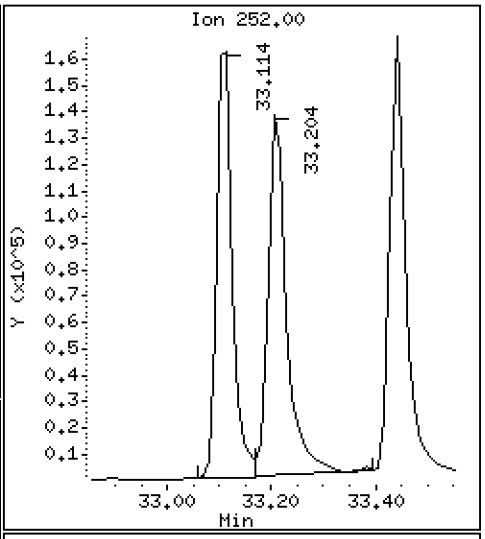
Column phase: Rxi-17Sil MS

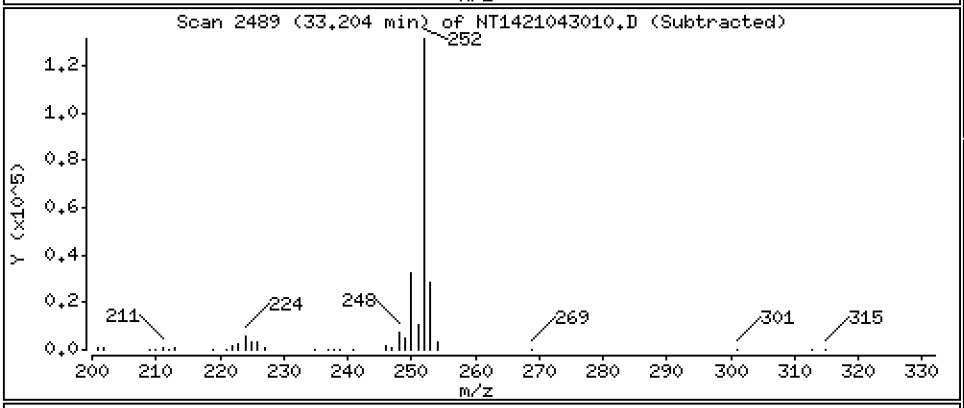
Column diameter: 0.25

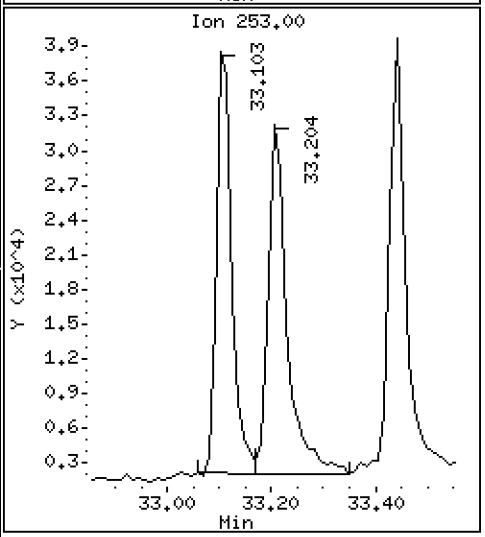
66 Benzo(a)pyrene

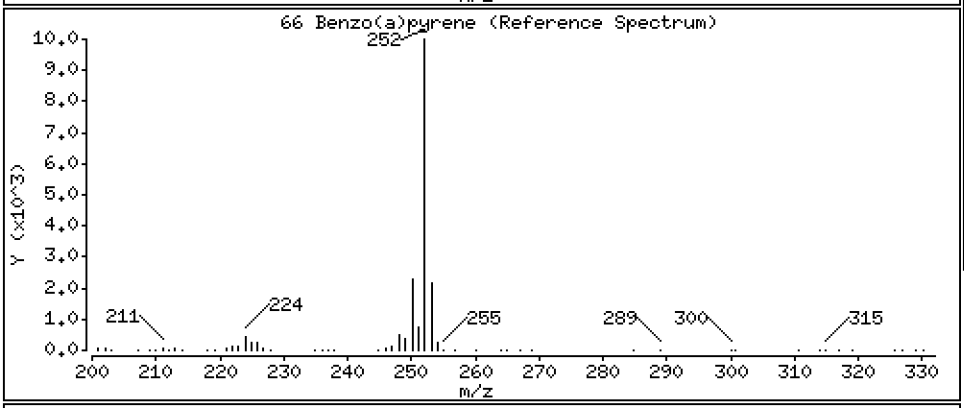
Concentration: 2.211 ug/mL

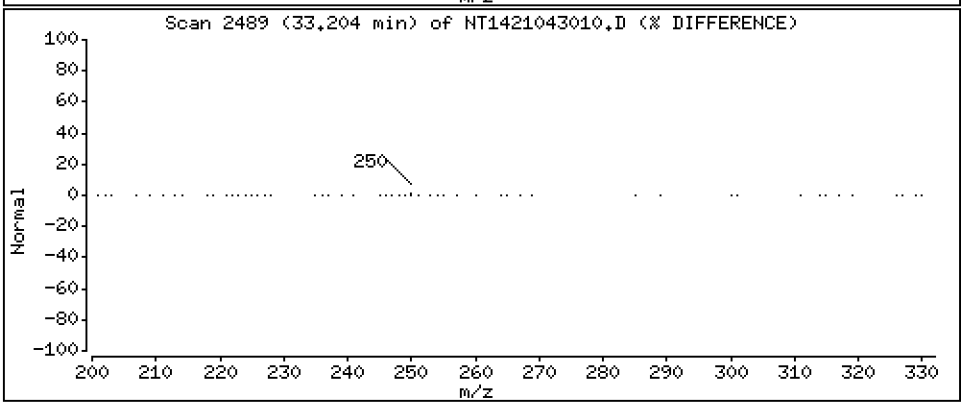












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

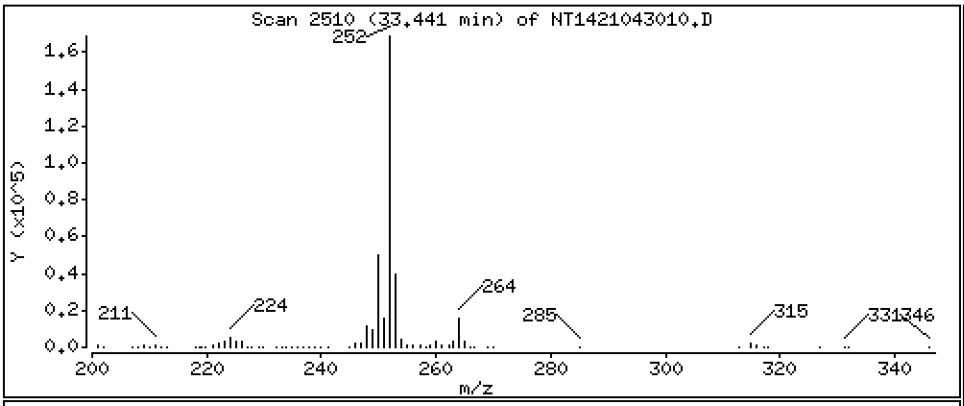
Operator: VTS

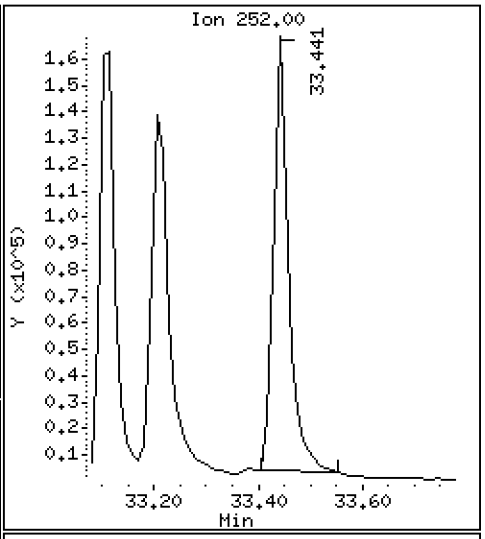
Column phase: Rxi-17Sil MS

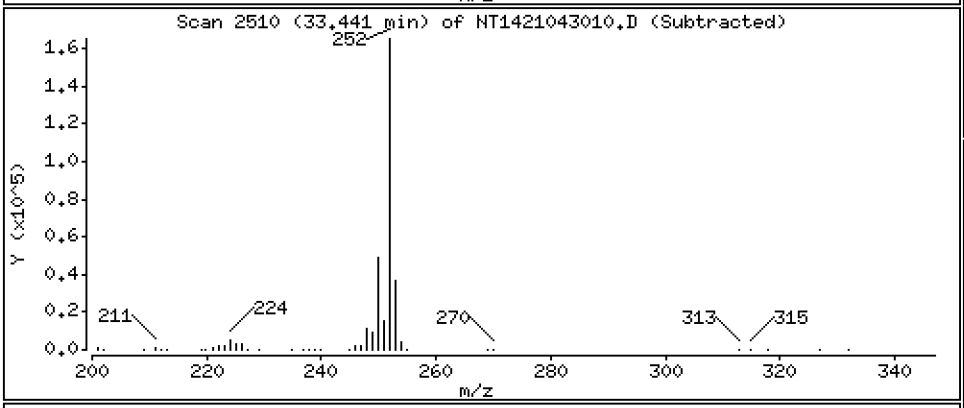
Column diameter: 0.25

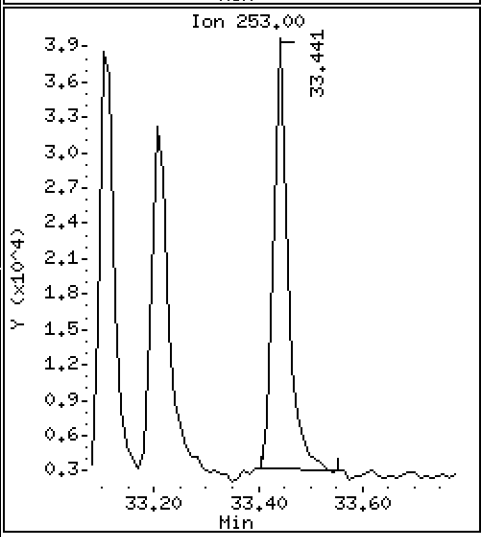
68 Perylene

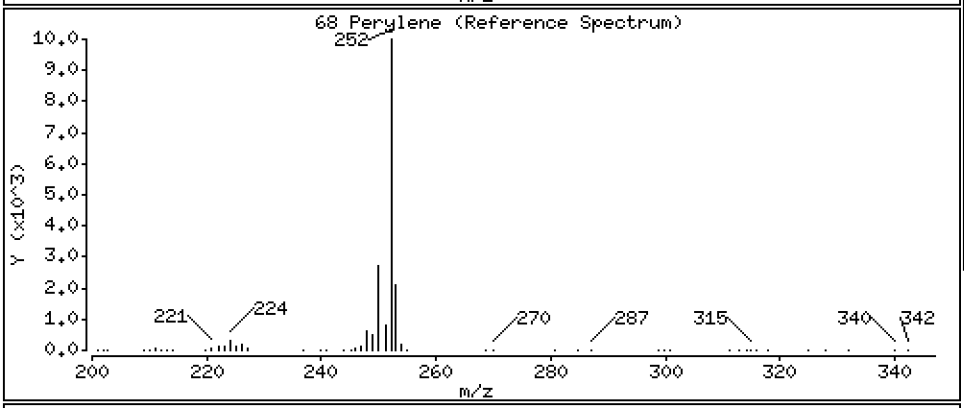
Concentration: 2.415 ug/mL

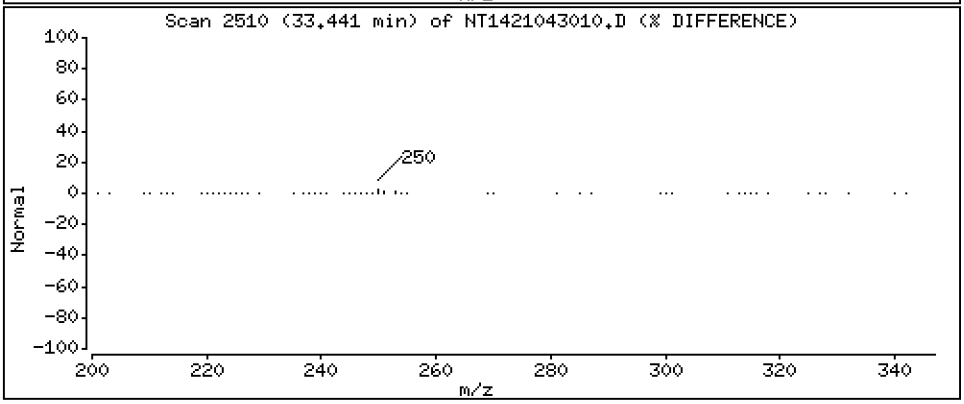












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

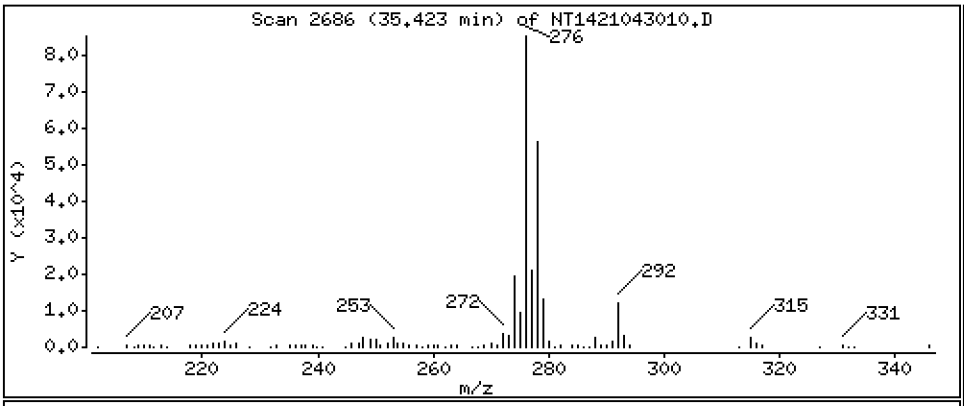
Operator: VTS

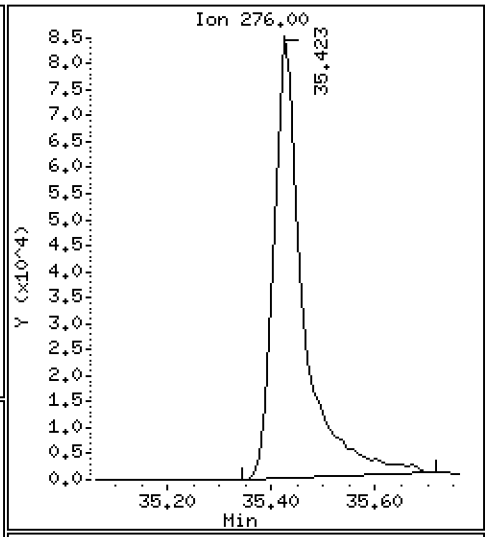
Column phase: Rxi-17Sil MS

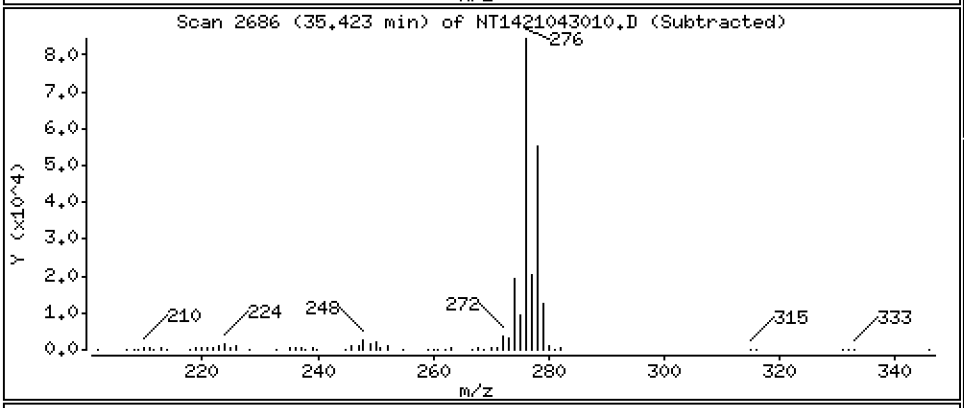
Column diameter: 0.25

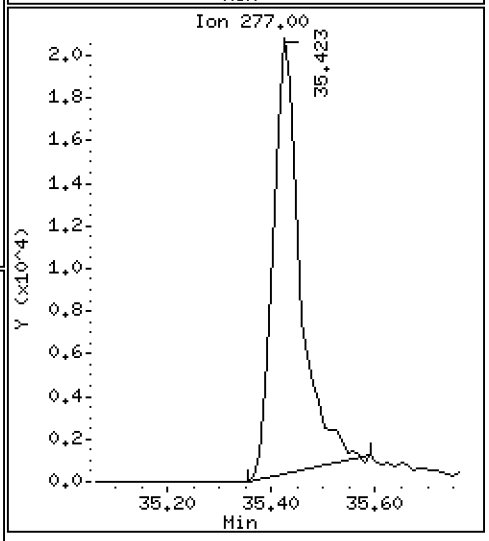
69 Indeno(1,2,3-cd)pyrene

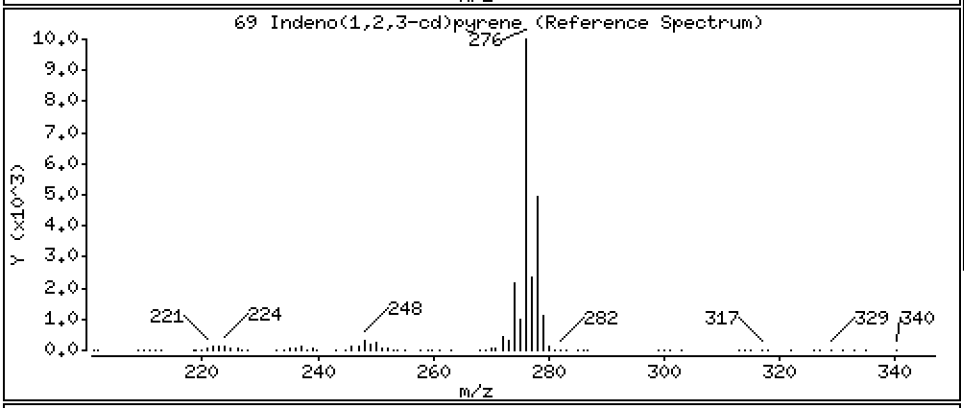
Concentration: 2.236 ug/mL

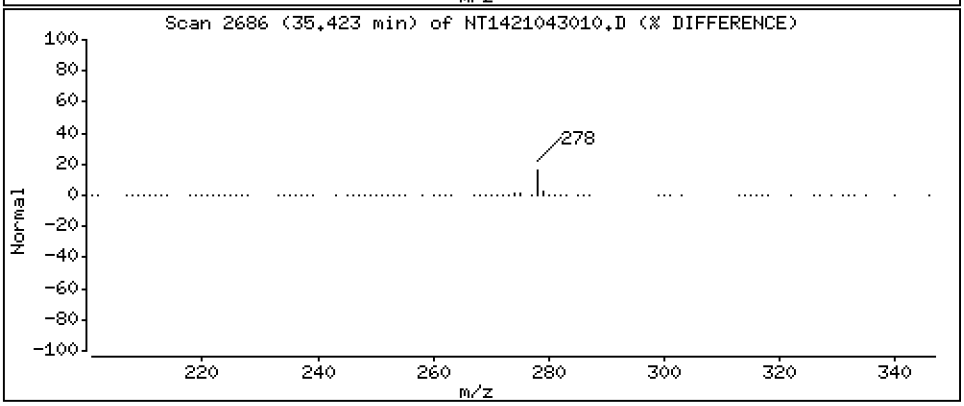












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

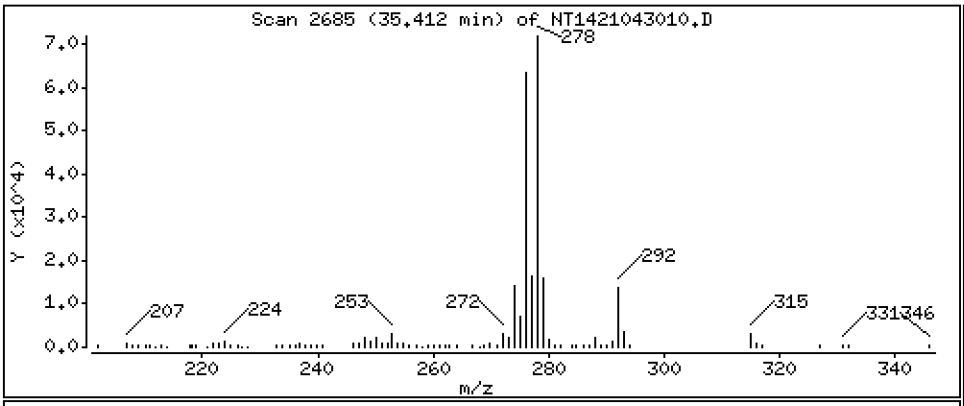
Operator: VTS

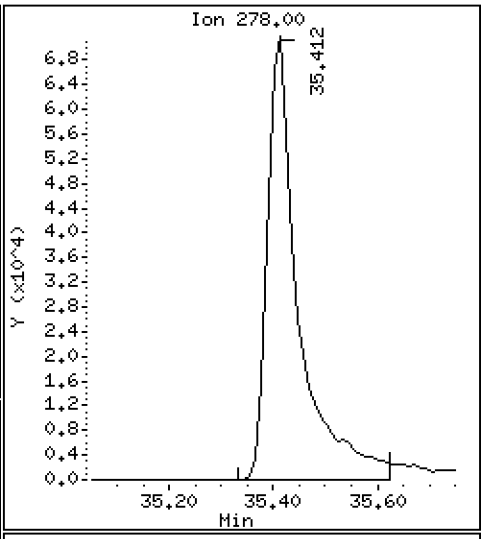
Column phase: Rxi-17Sil MS

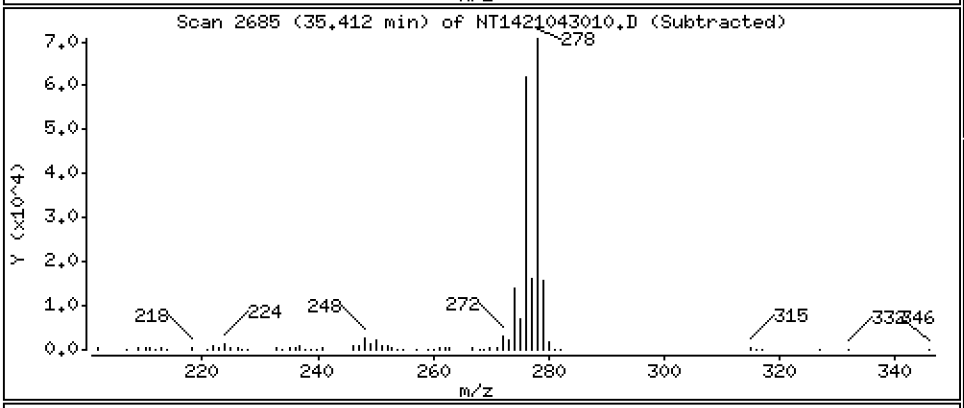
Column diameter: 0.25

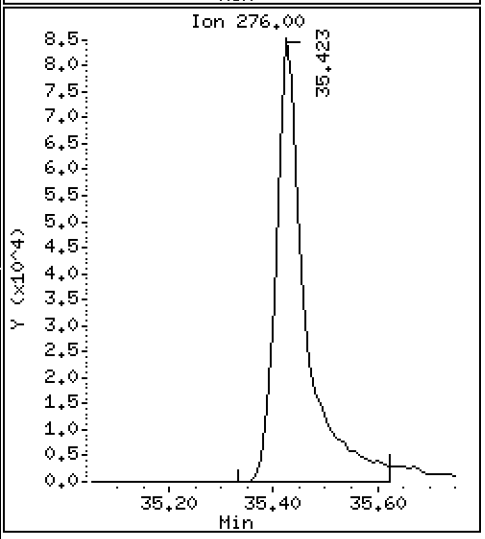
70 Dibenzo(a,h)anthracene

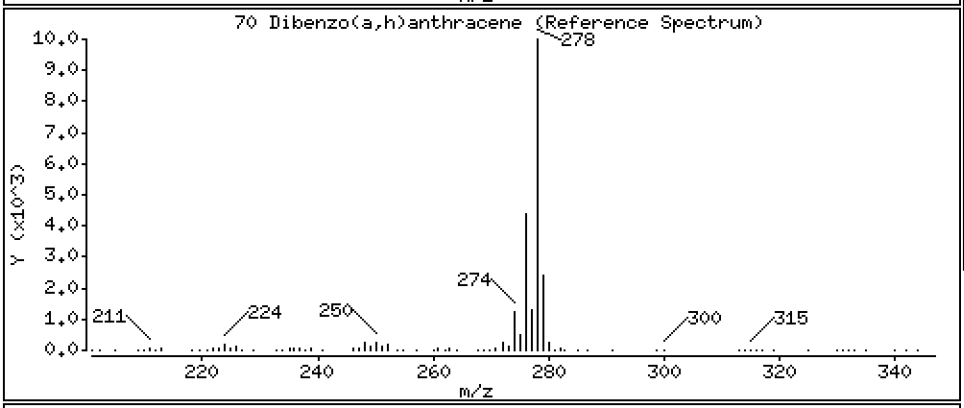
Concentration: 2.291 ug/mL

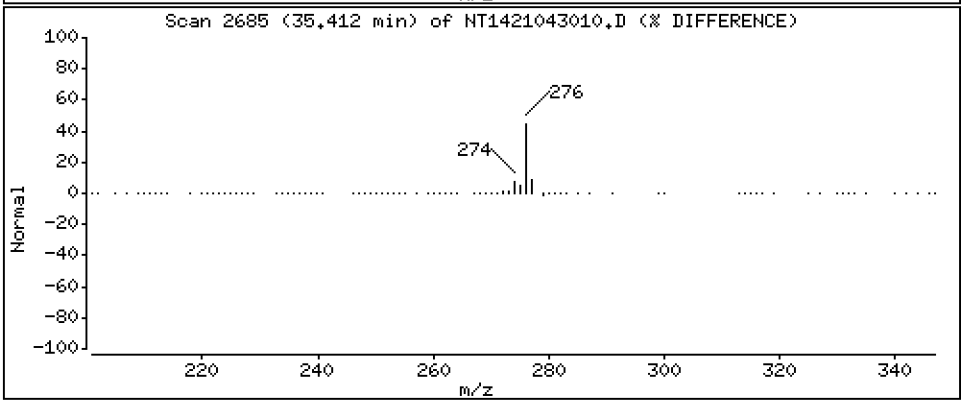












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

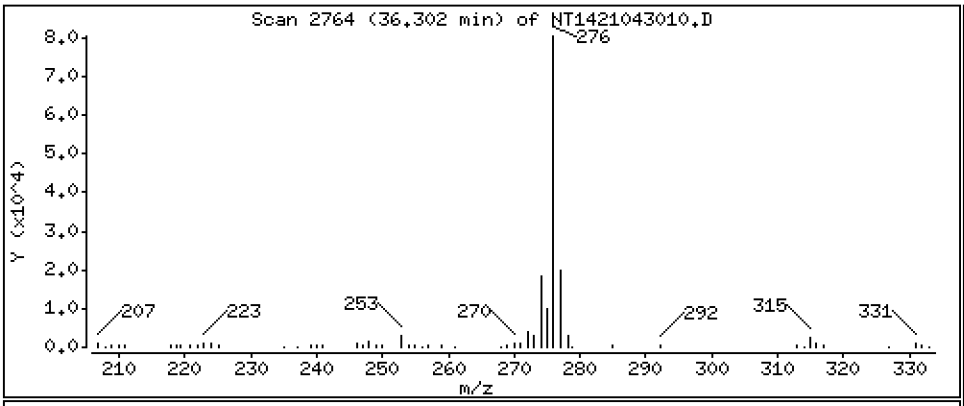
Operator: VTS

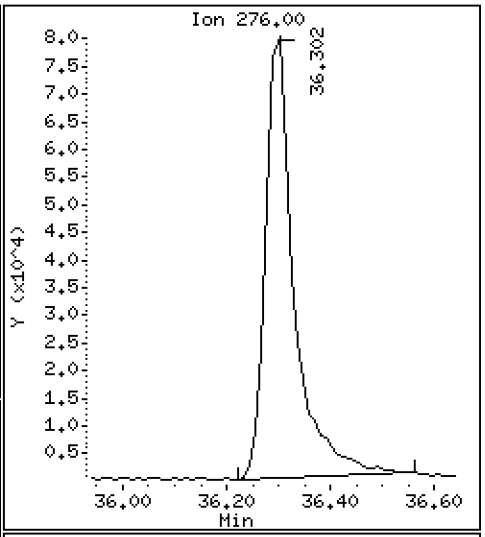
Column phase: Rxi-17Sil MS

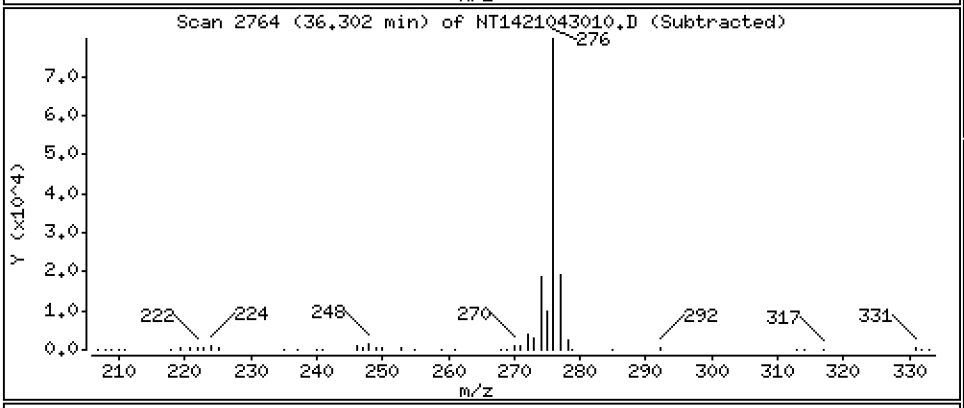
Column diameter: 0.25

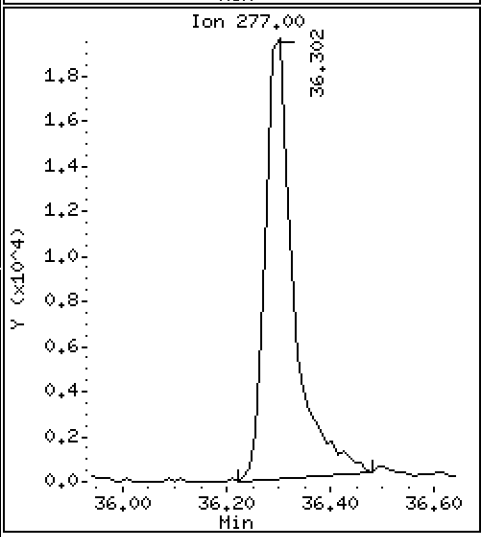
74 Benzo(g,h,i)perylene

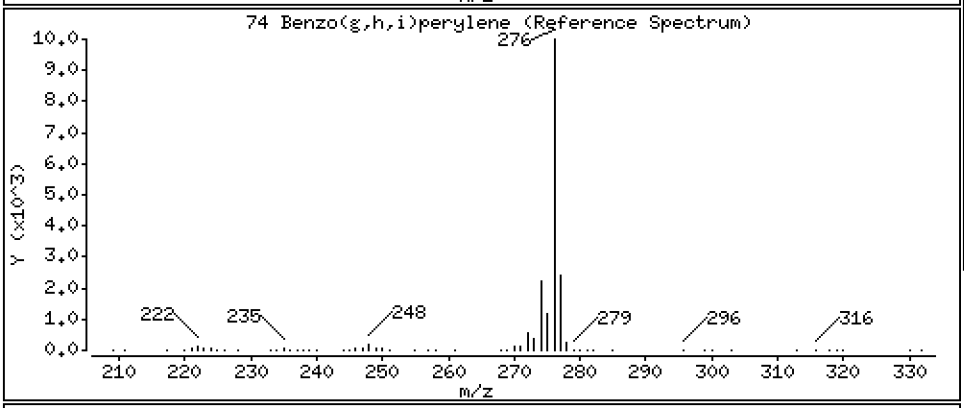
Concentration: 2.352 ug/mL

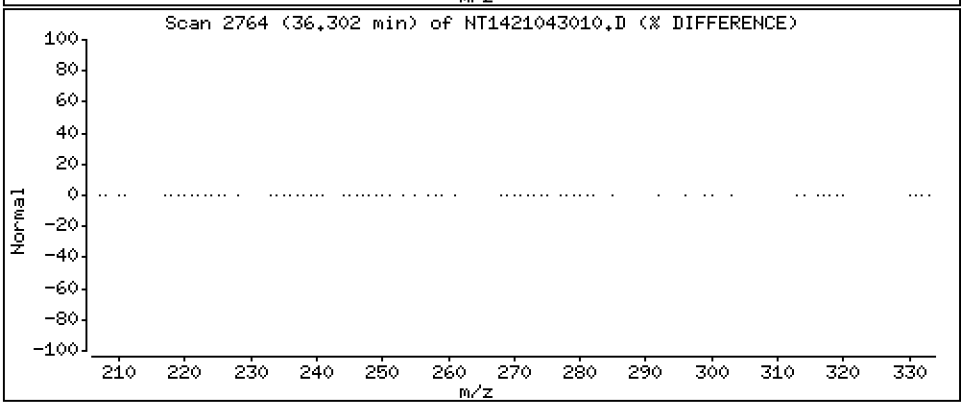












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	74342	2.84314	2.843
	2 cis-Decalin	138	8.155	8.165	(0.434)	52523	2.90966	2.910
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	604964	2.98636	2.986(R)
	7 Naphthalene	128	11.836	11.846	(0.630)	573337	2.78250	2.783
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	456850	2.78683	2.787
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	312811	2.84483	2.845
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	293934	2.82127	2.821
	18 Biphenyl	154	15.317	15.317	(0.815)	435061	2.76462	2.765
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	305582	2.82199	2.822
	20 Acenaphthylene	152	16.955	16.955	(0.903)	492364	2.88930	2.889
$	21 Acenaphthene-d10	164	17.252	17.241	(0.918)	298420	3.01695	3.017(R)
	22 Acenaphthene	153	17.362	17.361	(0.924)	329675	3.01019	3.010
	23 Dibenzofuran	168	17.735	17.735	(0.944)	459290	2.76760	2.768
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	277803	2.92320	2.923
*	25 Fluorene-d10	176	18.783	18.781	(1.000)	351020	2.00000	
	26 Fluorene	166	18.885	18.883	(1.005)	342973	2.84375	2.844
	30 Dibenzothiophene	184	21.796	21.794	(1.160)	423593	2.78230	2.782
$	35 Phenanthrene-d10	188	22.104	22.102	(0.995)	446008	2.66948	2.669(R)
	36 Phenanthrene	178	22.192	22.190	(0.999)	460265	2.46754	2.468
*	250 Anthracene-d10	188	22.225	22.223	(1.000)	309177	2.00000	
	37 Anthracene	178	22.291	22.289	(1.003)	428535	2.49230	2.492
	42 Carbazole	167	23.566	23.565	(1.060)	338612	2.34287	2.343
	43 1-Methylphenanthrene	192	24.017	24.015	(1.081)	293776	2.59400	2.594
	44 Fluoranthene	202	25.996	25.994	(1.170)	436345	2.63403	2.634
	46 Pyrene	202	26.843	26.841	(1.208)	433716	2.52654	2.527
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.964	(0.907)	342259	2.27793	2.278
$	56 Chrysene-d12	240	30.095	30.087	(0.911)	337659	2.82827	2.828(RM)
	57 Chrysene	228	30.163	30.166	(0.913)	394981	2.57401	2.574
	62 Benzo(b)fluoranthene	252	32.393	32.386	(0.980)	324344	2.32564	2.326
	63 Benzo(k)fluoranthene	252	32.438	32.430	(0.982)	391530	2.30379	2.304(M)
	293 Benzo(j)fluoranthene	252	32.494	32.498	(0.983)	393189	2.51567	2.516(M)
	246 Total Benzofluoranthenes	252	32.494	32.497	(0.983)	1066161	6.96004	6.960(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505(RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415(M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 14:41

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

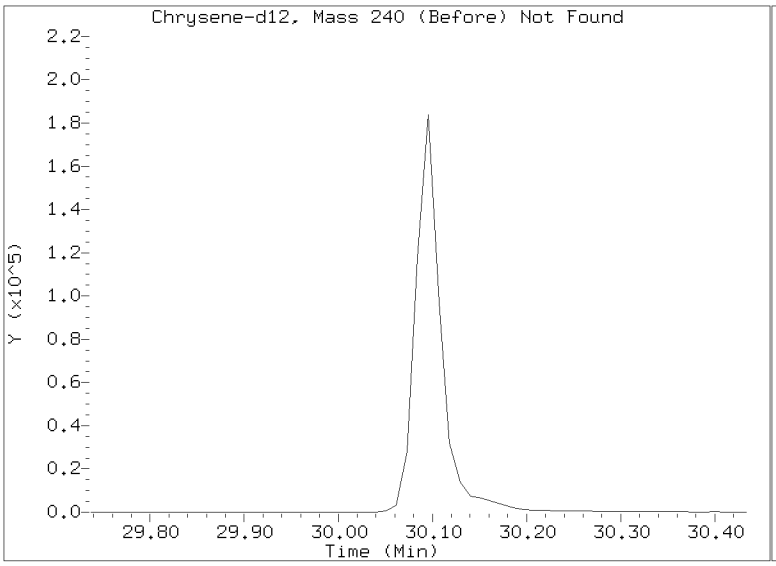
RRT check based on Ccal File: NT1421043009.D

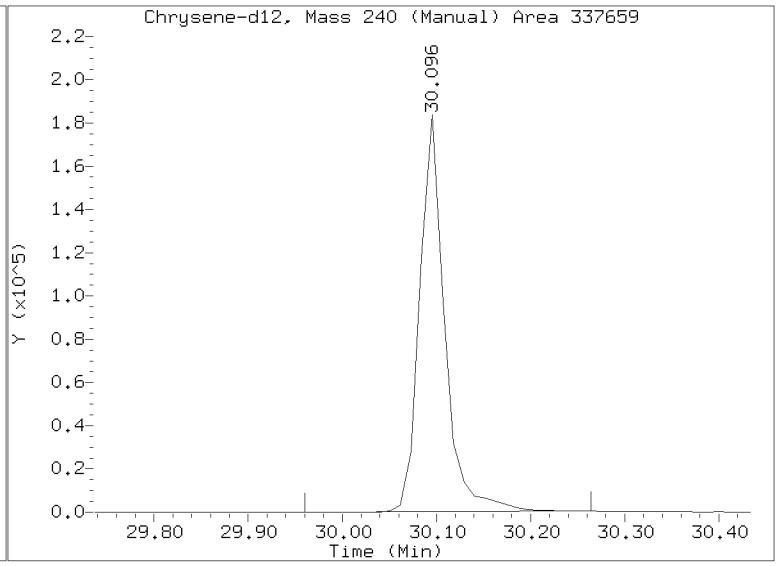
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

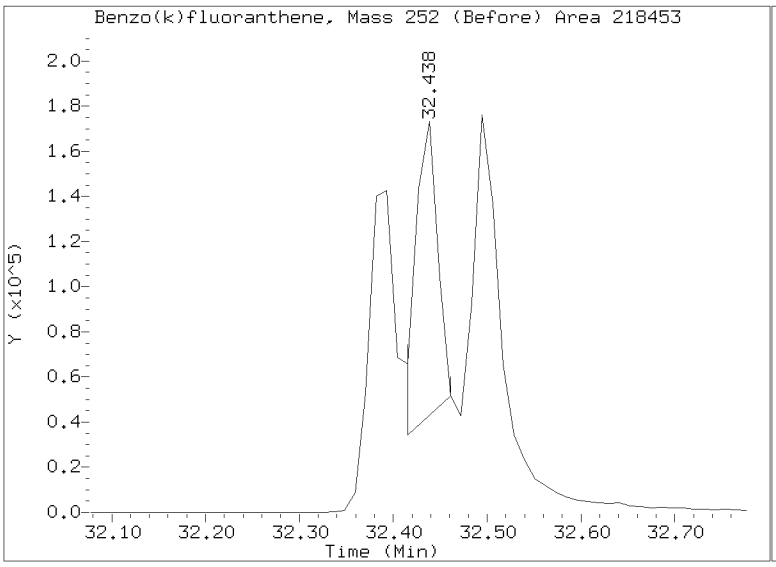
* Only compounds listed in the work order have been verified by the analyst *

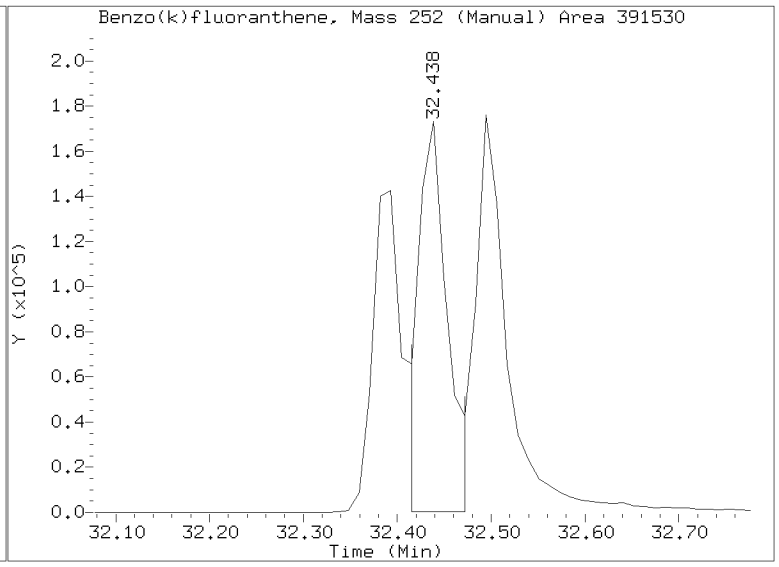
Quant Ion Manual Peak Adjustment Report

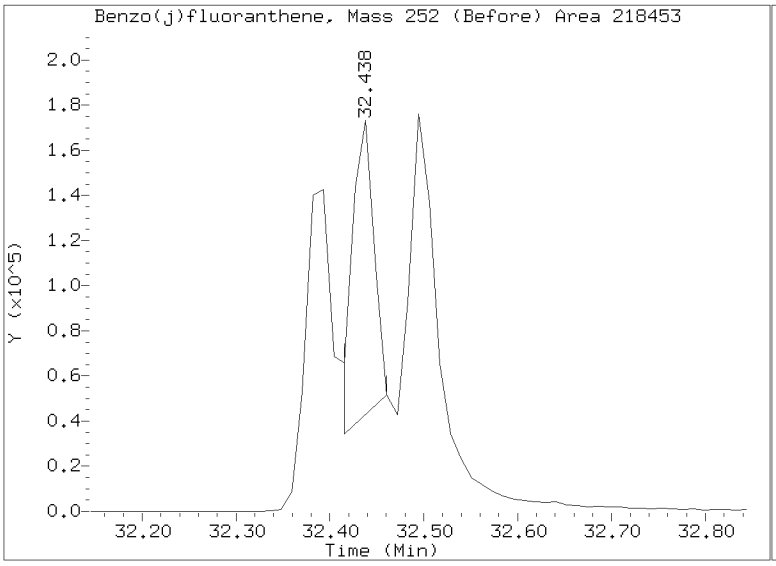
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

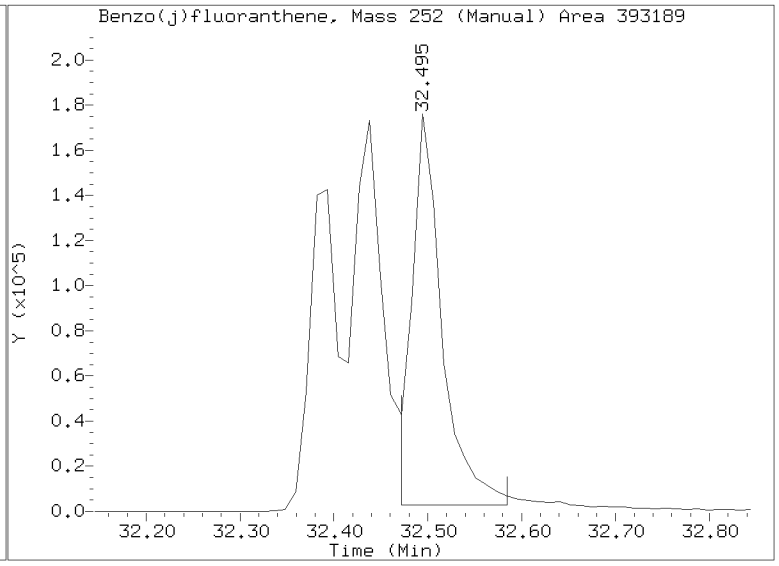






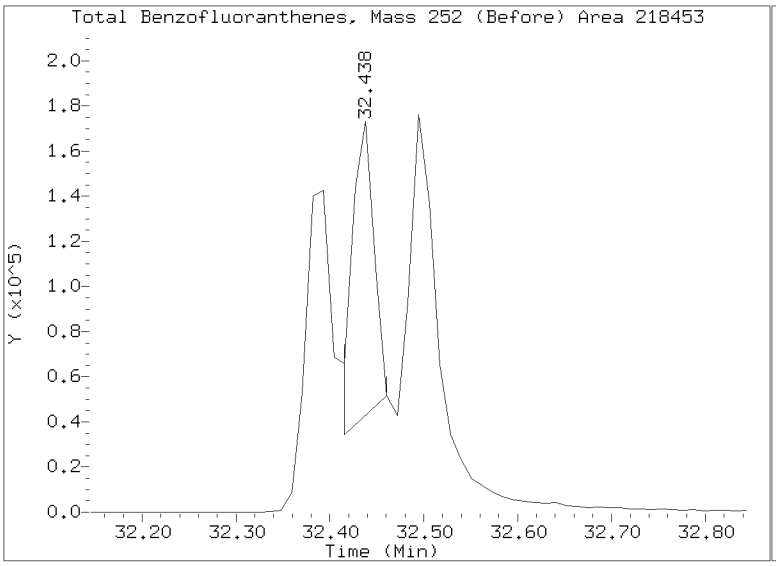


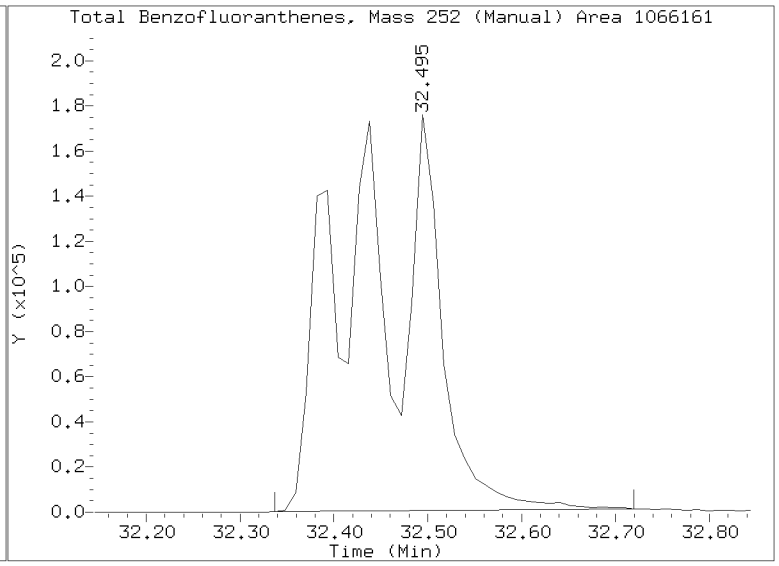


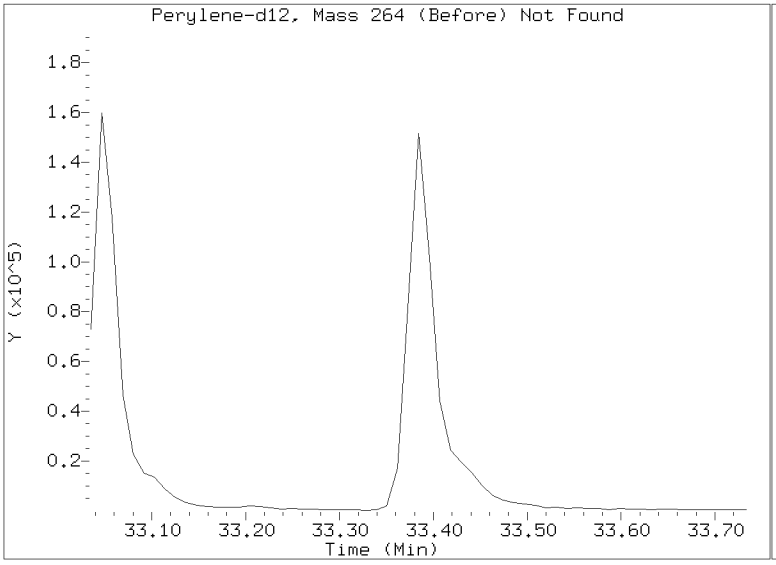


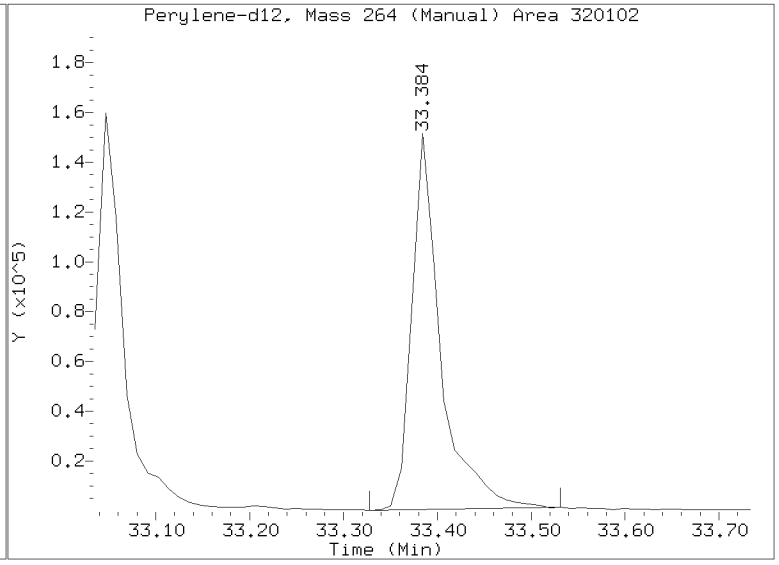
Quant Ion Manual Peak Adjustment Report

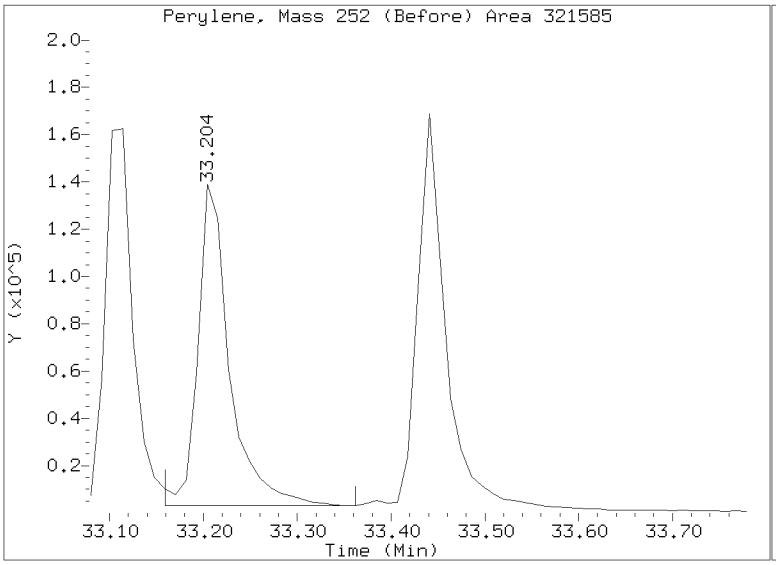
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

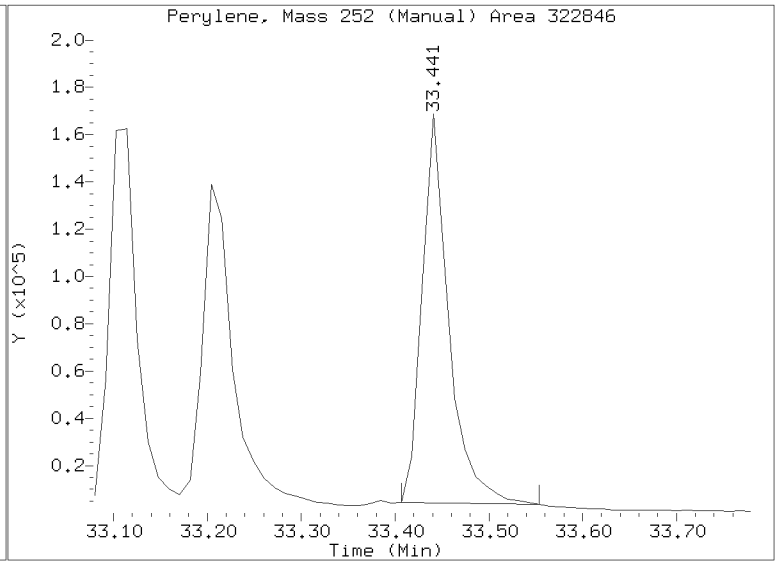






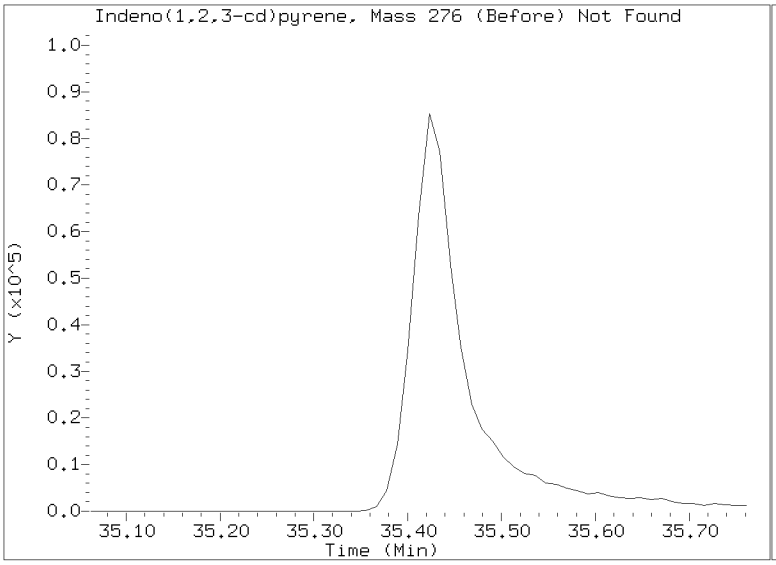


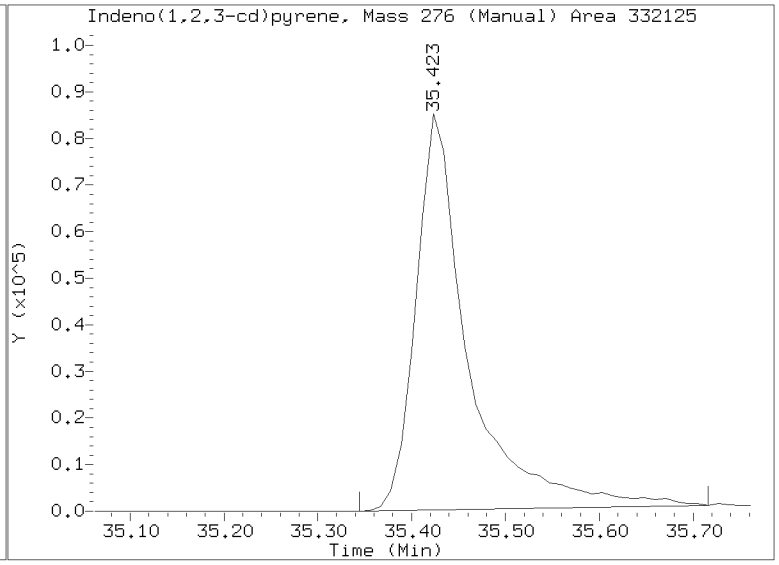


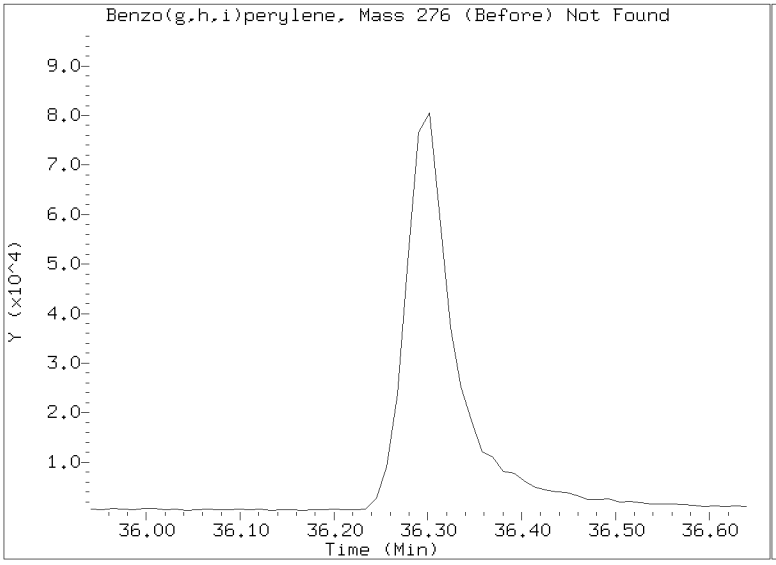


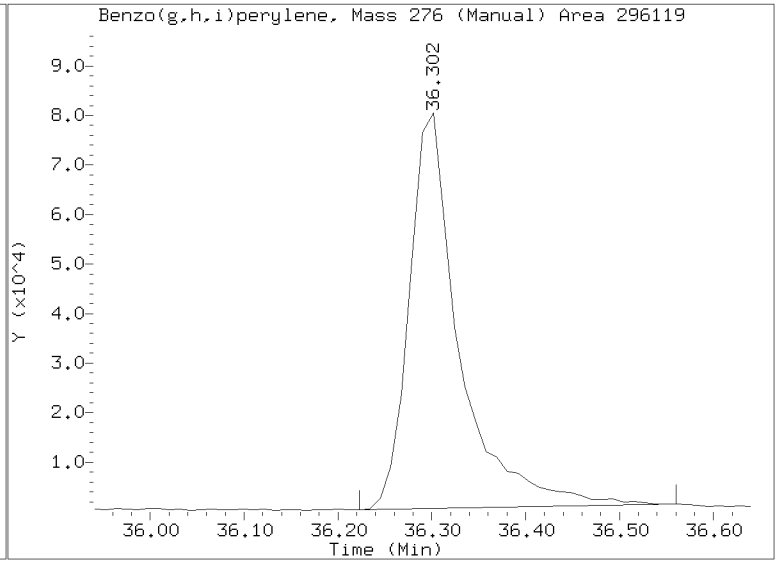
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18









INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043024ICV.D	Calibration Date:	04/30/2021
Sequence:	SJD0345	Injection Date:	05/01/21
Lab Sample ID:	SJD0345-ICV1	Injection Time:	01:56
Sequence Name:	Initial Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
trans-Decalin	A	2.5000	2.73	0.1489821	0.1627457		9.2	+/-20	
cis-Decalin	A	2.5000	2.76	0.1028504	0.1136231		10.5	+/-20	
Naphthalene	A	2.5000	2.74	1.1740120	1.2867400		9.6	+/-20	
1-Methylnaphthalene	A	2.5000	2.85	0.5936130	0.6758820		13.8	+/-20	
2-Methylnaphthalene	A	2.5000	2.88	0.6265036	0.7206958		15.0	+/-20	
Biphenyl	A	2.5000	2.80	0.8966280	1.0039310		12.0	+/-20	
2,6-Dimethylnaphthalene	A	2.5000	2.92	0.6169792	0.7199652		16.7	+/-20	
Acenaphthylene	A	2.5000	3.16	0.9709370	1.2253840		26.2	+/-20	*
Acenaphthene	A	2.5000	2.99	0.6240076	0.7463711		19.6	+/-20	
Dibenzofuran	A	2.5000	2.89	0.9455456	1.0922750		15.5	+/-20	
2,3,5-Trimethylnaphthalene	A	2.5000	3.11	0.5414731	0.6725756		24.2	+/-20	*
Fluorene	A	2.5000	2.95	0.6871732	0.8101517		17.9	+/-20	
Benzo(b)thiophene	A	2.5000	2.78	0.9340302	1.0398490		11.3	+/-20	
Phenanthrene	A	2.5000	2.45	1.2066070	1.1801850		-2.2	+/-20	
Anthracene	A	2.5000	2.55	1.1122650	1.1359360		2.1	+/-20	
Carbazole	A	2.5000	2.58	0.8290303	0.9658137		3.1	+/-20	
1-Methylphenanthrene	A	2.5000	2.74	0.7326040	0.8018550		9.4	+/-20	
Fluoranthene	A	2.5000	2.74	1.0715980	1.1746620		9.6	+/-20	
Dibenzothiophene	A	2.5000	2.96	0.8674458	1.0276410		18.5	+/-20	
Pyrene	A	2.5000	2.72	1.1104570	1.2071770		8.7	+/-20	
Benzo(a)anthracene	A	2.5000	2.68	0.8222601	0.9877899		7.3	+/-20	
Chrysene	A	2.5000	2.60	0.9340580	0.9720783		4.1	+/-20	
Benzo(b)fluoranthene	A	2.5000	2.85	0.7491309	0.9757609		13.9	+/-20	
Benzo(j)fluoranthene	A	2.5000	2.47	0.9513865	0.9393519		-1.3	+/-20	
Benzo(k)fluoranthene	A	2.5000	2.65	0.9278309	1.1027960		6.0	+/-20	
Benzo(e)pyrene	A	2.5000	2.79	0.8518347	0.9491296		11.4	+/-20	
Benzo(a)pyrene	A	2.5000	2.55	0.7422947	0.8950896		2.0	+/-20	
Indeno(1,2,3-cd)pyrene	A	2.5000	2.85	0.7887712	1.0397380		13.9	+/-20	
Dibenzo(a,h)anthracene	A	2.5000	2.75	0.6549683	0.8658668		9.8	+/-20	
Benzo(g,h,i)perylene	A	2.5000	2.97	0.7663214	0.9089689		18.6	+/-20	
Perylene	A	2.5000	2.88	0.8135951	0.9378319		15.3	+/-20	

* Values outside of QC limits

INITIAL CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043024ICV.D	Calibration Date:	04/30/2021
Sequence:	SJD0345	Injection Date:	05/01/21
Lab Sample ID:	SJD0345-ICV1	Injection Time:	01:56
Sequence Name:	Initial Cal Check		

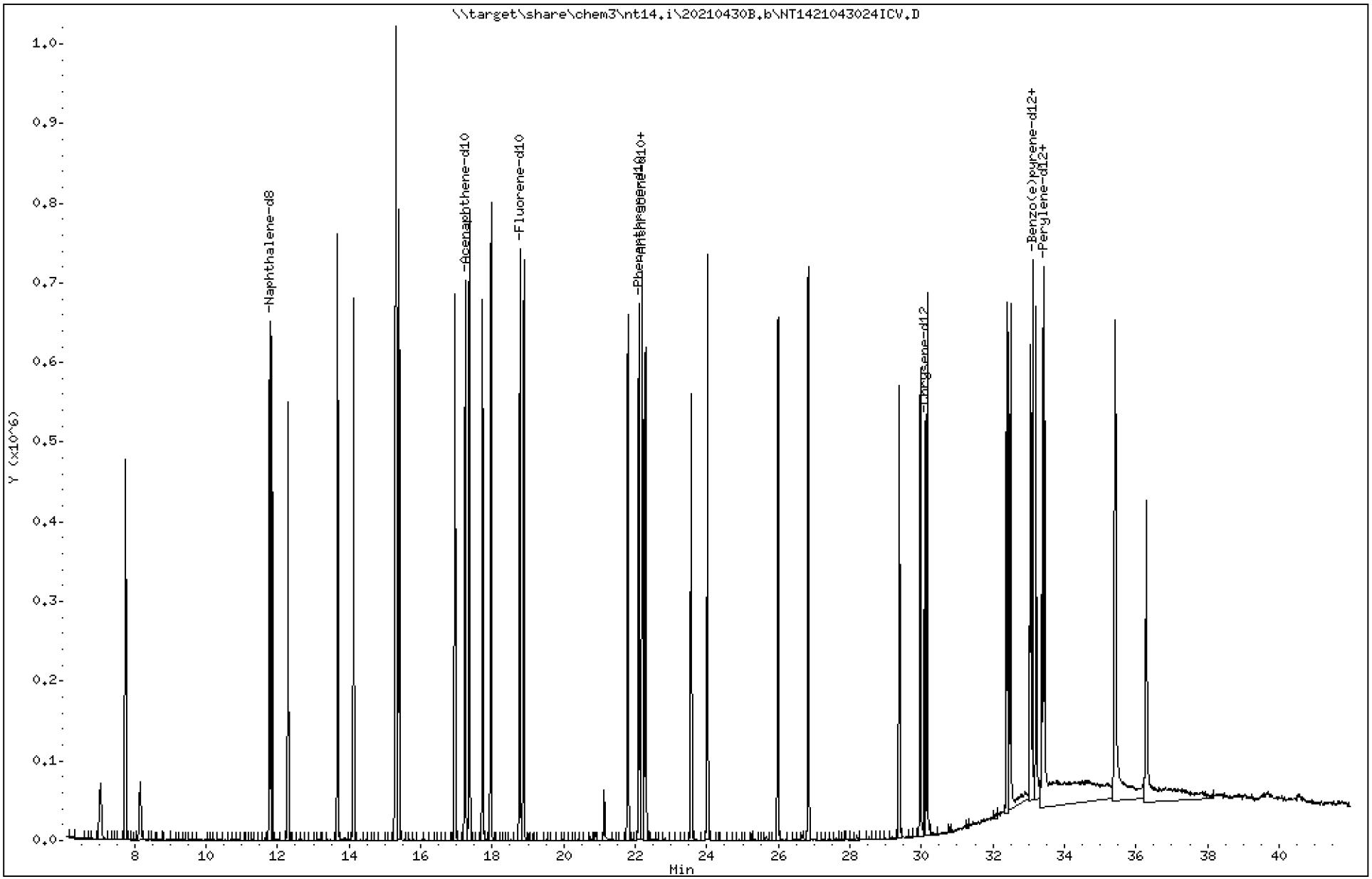
COMPOUND	TYPE	CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.62	1.0821370	1.1345330		4.8	+/-20
Naphthalene-d8	A	2.5000	2.78	1.1542130	1.2831980		11.2	
Acenaphthene-d10	A	2.5000	2.94	0.5635830	0.6617420		17.4	
Phenanthrene-d10	A	2.5000	2.46	1.0807840	1.0646080		-1.5	
Chrysene-d12	A	2.5000	2.76	0.7267179	0.8021807		10.4	
Perylene-d12	A	2.5000	2.65	0.6899017	0.8260397		6.0	

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430B.b\NT1421043024ICV.D
Date : 01-MAY-2021 01:56
Client ID:
Sample Info: SJD0345-ICV1

Instrument: nt14.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430B.b\NT1421043024ICV.D
Lab Smp Id: SJD0345-ICV1
Inj Date : 01-MAY-2021 01:56
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0345-ICV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Meth Date : 01-May-2021 08:03 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
	1 trans-Decalin	138	7.045	7.045	(0.375)	107154	2.50000	2.731
	2 cis-Decalin	138	8.165	8.165	(0.435)	74811	2.50000	2.762
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	844875	2.50000	2.779
	7 Naphthalene	128	11.836	11.836	(0.631)	847207	2.50000	2.740
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	684651	2.50000	2.783
	16 2-Methylnaphthalene	141	13.680	13.680	(0.729)	474516	2.50000	2.876
	17 1-methylnaphthalene	141	14.131	14.131	(0.753)	445010	2.50000	2.846
	18 Biphenyl	154	15.318	15.318	(0.816)	661002	2.50000	2.799
	19 2,6-Dimethylnaphthalene	156	15.395	15.395	(0.820)	474035	2.50000	2.917
	20 Acenaphthylene	152	16.955	16.955	(0.903)	806810	2.50000	3.155
$	21 Acenaphthene-d10	164	17.241	17.241	(0.918)	435700	2.50000	2.935
	22 Acenaphthene	153	17.362	17.362	(0.925)	491421	2.50000	2.990
	23 Dibenzofuran	168	17.735	17.735	(0.945)	719169	2.50000	2.888
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	442833	2.50000	3.105
*	25 Fluorene-d10	176	18.772	18.772	(1.000)	526731	2.00000	
	26 Fluorene	166	18.885	18.885	(1.006)	533415	2.50000	2.947
	30 Dibenzothiophene	184	21.796	21.796	(1.161)	676613	2.50000	2.962
$	35 Phenanthrene-d10	188	22.104	22.104	(0.995)	640484	2.50000	2.463
	36 Phenanthrene	178	22.181	22.181	(0.999)	710017	2.50000	2.445
*	250 Anthracene-d10	188	22.214	22.214	(1.000)	481292	2.00000	
	37 Anthracene	178	22.291	22.291	(1.003)	683396	2.50000	2.553
	42 Carbazole	167	23.566	23.566	(1.061)	581048	2.50000	2.577
	43 1-Methylphenanthrene	192	24.017	24.017	(1.081)	482408	2.50000	2.736
	44 Fluoranthene	202	25.996	25.996	(1.170)	706694	2.50000	2.740
	46 Pyrene	202	26.843	26.843	(1.208)	726256	2.50000	2.718
	51 Naphthobenzothiophene	234	29.375	29.375	(1.322)	682552	2.50000	2.621
	55 Benzo(a)anthracene	228	29.971	29.971	(0.907)	601101	2.50000	2.683
$	56 Chrysene-d12	240	30.095	30.095	(0.911)	488152	2.50000	2.760
	57 Chrysene	228	30.163	30.163	(0.913)	591540	2.50000	2.602
	62 Benzo(b)fluoranthene	252	32.382	32.382	(0.980)	593781	2.50000	2.848(M)
	63 Benzo(k)fluoranthene	252	32.438	32.438	(0.982)	671086	2.50000	2.651(M)
	293 Benzo(j)fluoranthene	252	32.494	32.494	(0.983)	571625	2.50000	2.468
	246 Total Benzofluoranthenes	252	32.382	32.382	(0.980)	1790607	7.50000	7.860(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.046	(1.000)	486825	2.00000	
64 Benzo(e)pyrene	252	33.102	33.102	(1.002)	577575	2.50000	2.786
66 Benzo(a)pyrene	252	33.204	33.204	(1.005)	544690	2.50000	2.551
$ 67 Perylene-d12	264	33.384	33.384	(1.010)	502671	2.50000	2.651
68 Perylene	252	33.440	33.440	(1.012)	570700	2.50000	2.882
69 Indeno(1,2,3-cd)pyrene	276	35.423	35.423	(1.072)	632713	2.50000	2.848(M)
70 Dibenzo(a,h)anthracene	278	35.400	35.400	(1.071)	526907	2.50000	2.746(M)
74 Benzo(g,h,i)perylene	276	36.290	36.290	(1.098)	553136	2.50000	2.965(M)

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043024ICV.D
Lab Smp Id: SJD0345-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430B.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 16:17
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	526731	263366	1053462	526731	0.00
250 Anthracene-d10	481292	240646	962584	481292	0.00
251 Benzo(e)pyrene-d1	486825	243413	973650	486825	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	0.00
250 Anthracene-d10	22.21	21.71	22.71	22.21	0.00
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043024ICV.D

Lab ID: SJD0345-ICV1
nt14.i, 20210430B.b\ALKYLPNA.m,   01-MAY-2021 01:56

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

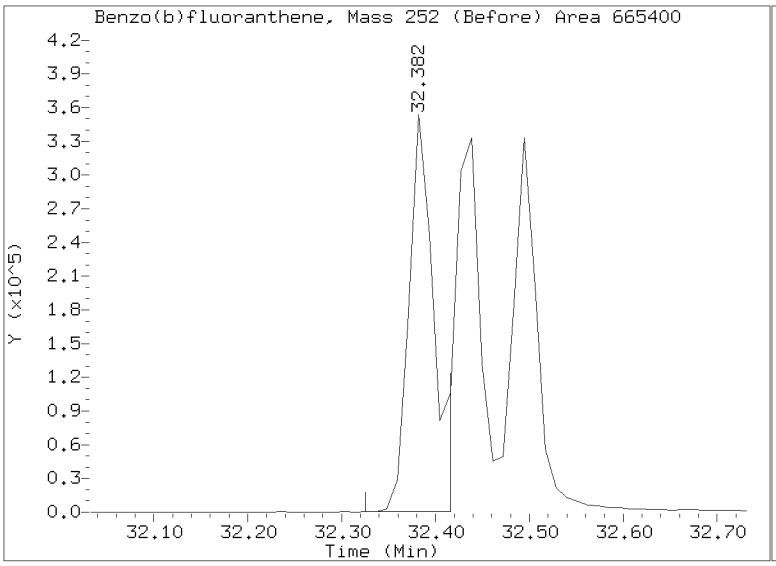
No RRT check. Ccal file.

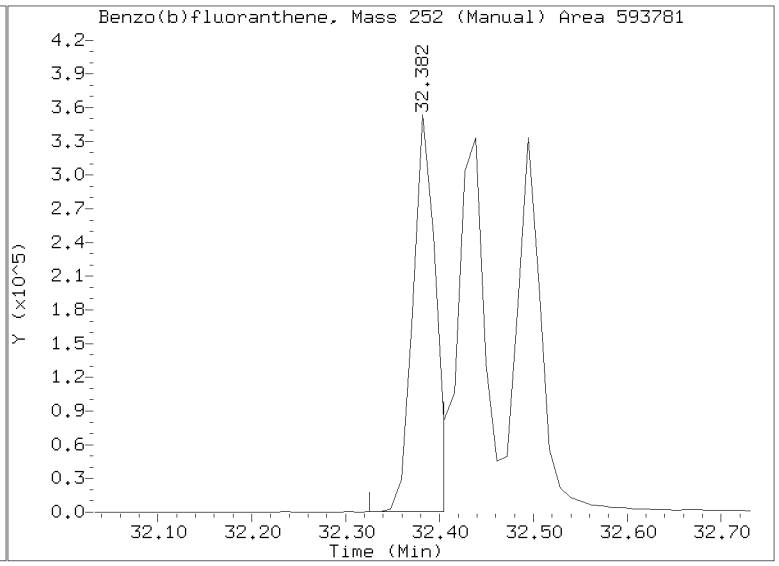
On Column LOD for nt14.i, 20210430B.b\ALKYLPNA.m, TARGETS.sub = 0.0000

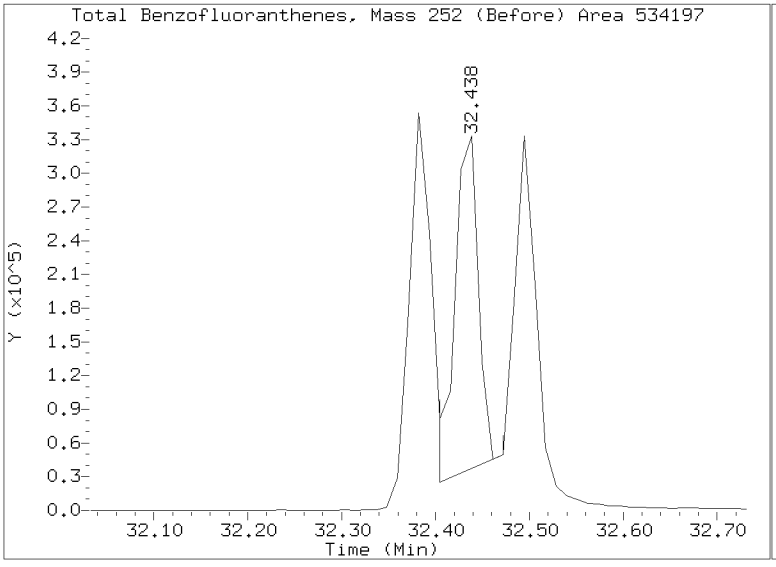
* Only compounds listed in the work order have been verified by the analyst *

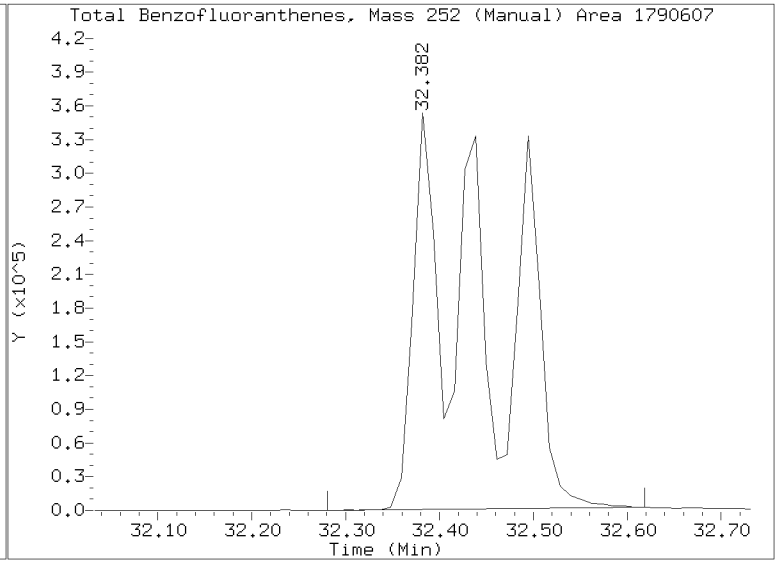
Quant Ion Manual Peak Adjustment Report

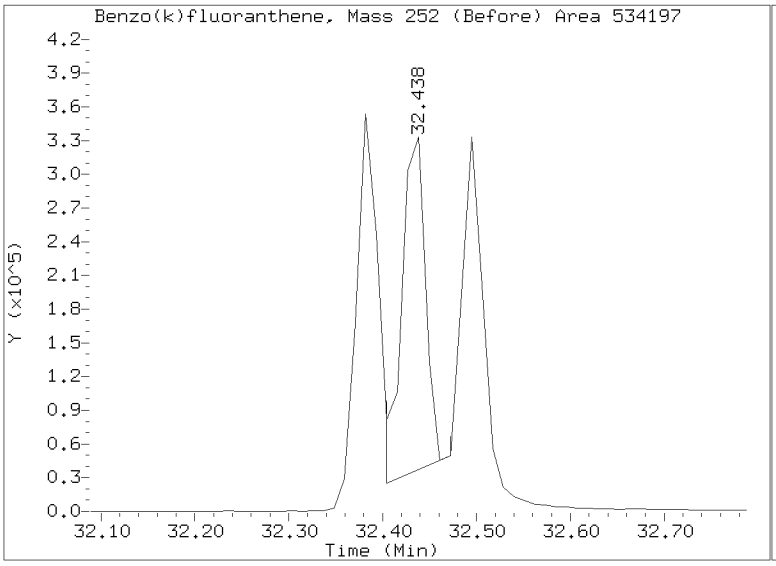
Datafile: //target/share/chem3/nt14.i/20210430B.b/NT1421043024ICV.D
Injection Date: 01-MAY-2021 01:56
Lab ID:SJD0345-ICV1 Client ID:
Report Date: 05/01/2021 13:27

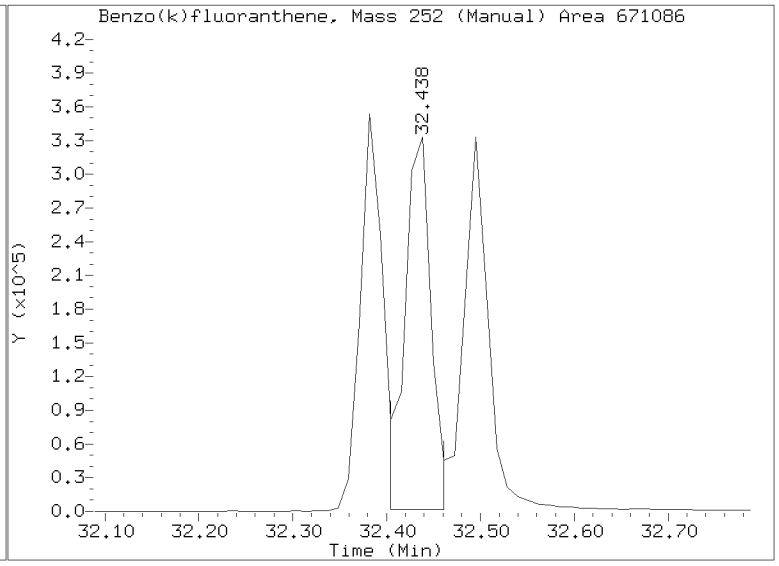






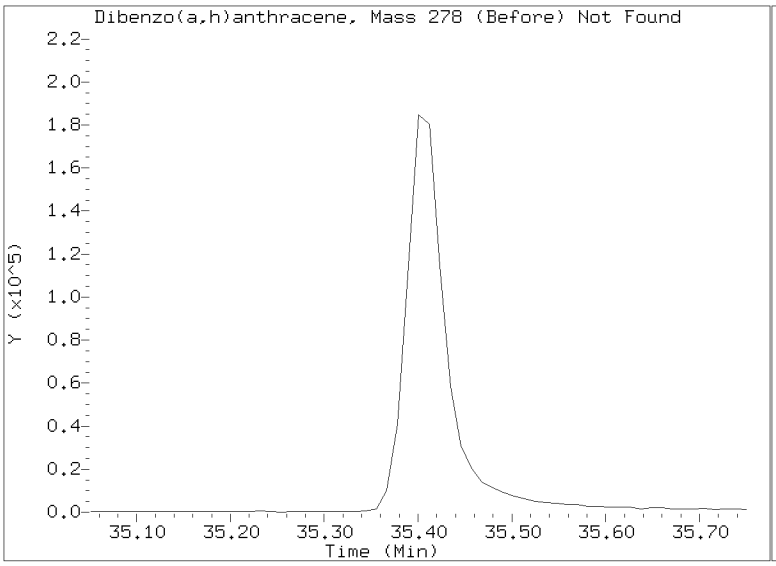


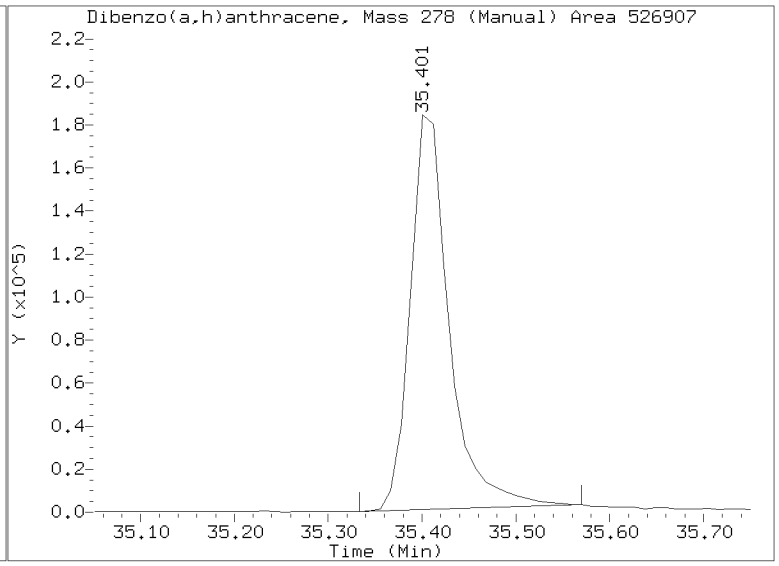


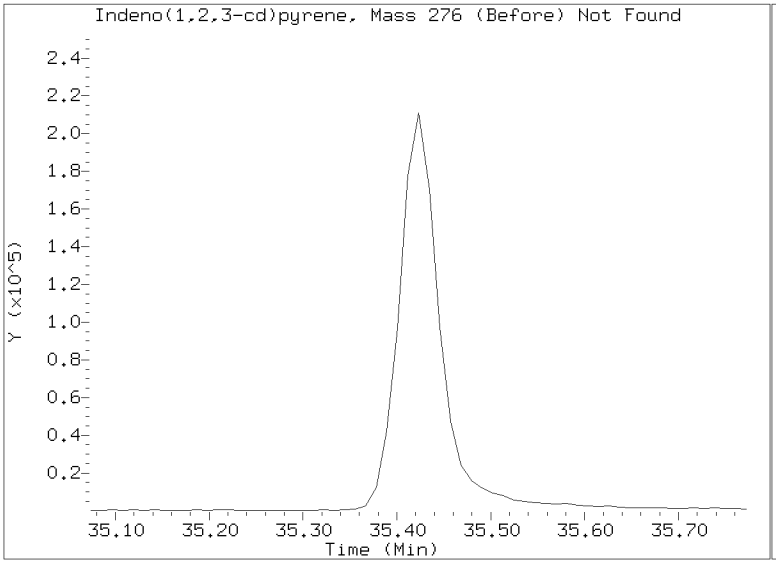


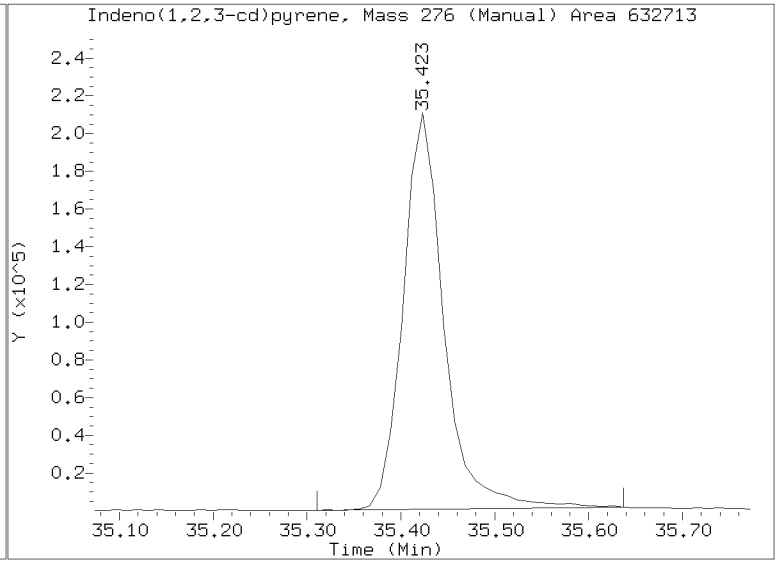
Quant Ion Manual Peak Adjustment Report

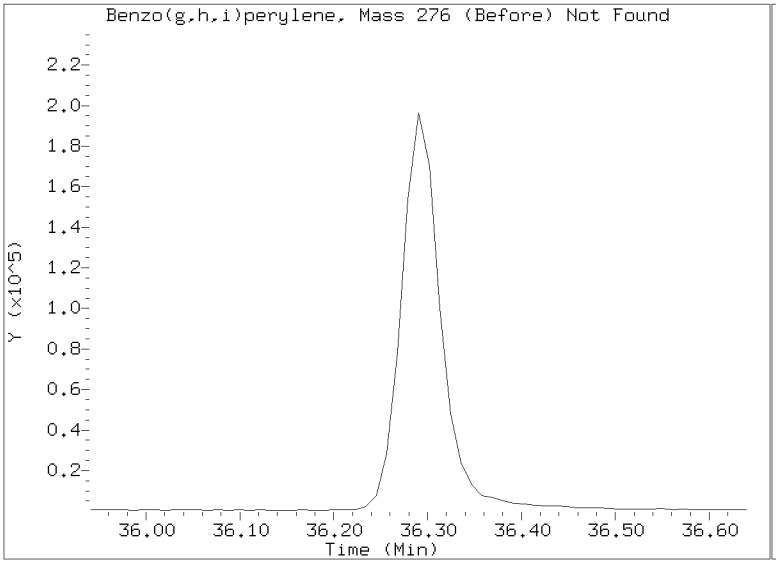
Datafile: //target/share/chem3/nt14.i/20210430B.b/NT1421043024ICV.D
Injection Date: 01-MAY-2021 01:56
Lab ID:SJD0345-ICV1 Client ID:
Report Date: 05/01/2021 13:27

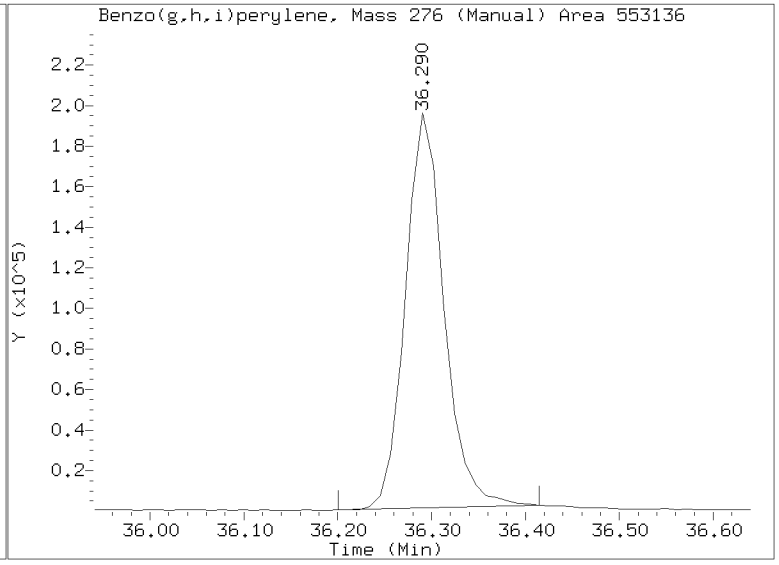












Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430B.b

Instrument: nt14.i Date: 01-MAY-2021 Method: 20210430B.b\ALKYLPNA.m

INITIAL CAL: 30-APR-2021

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: NT1421043024ICV.D 01-MAY-2021 01:56

Compound	%D
Acenaphthylene	26.2
1,6,7-Trimethylnaphthalene	24.2

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043010.D	Calibration Date:	04/30/2021
Sequence:	SJD0305	Injection Date:	04/30/21
Lab Sample ID:	SJD0305-SCV1	Injection Time:	14:41
Sequence Name:	Secondary Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.8	0.1489821	0.1694308		13.7	+/-20
cis-Decalin	A	2.5000	2.9	0.1028504	0.1197037		16.4	+/-20
Naphthalene	A	2.5000	2.8	1.1740120	1.3066770		11.3	+/-20
1-Methylnaphthalene	A	2.5000	2.8	0.5936130	0.6698969		12.9	+/-20
2-Methylnaphthalene	A	2.5000	2.8	0.6265036	0.7129189		13.8	+/-20
Biphenyl	A	2.5000	2.8	0.8966280	0.9915355		10.6	+/-20
2,6-Dimethylnaphthalene	A	2.5000	2.8	0.6169792	0.6964435		12.9	+/-20
Acenaphthylene	A	2.5000	2.9	0.9709370	1.1221330		15.6	+/-20
Acenaphthene	A	2.5000	3.0	0.6240076	0.7513532		20.4	+/-20
Dibenzofuran	A	2.5000	2.8	0.9455456	1.0467550		10.7	+/-20
2,3,5-Trimethylnaphthalene	A	2.5000	2.9	0.5414731	0.6331332		16.9	+/-20
Fluorene	A	2.5000	2.8	0.6871732	0.7816603		13.8	+/-20
Benzo(b)thiophene	A	2.5000	2.8	0.9340302	1.0411940		11.5	+/-20
Phenanthrene	A	2.5000	2.5	1.2066070	1.1909420		-1.3	+/-20
Anthracene	A	2.5000	2.5	1.1122650	1.1088410		-0.3	+/-20
Carbazole	A	2.5000	2.3	0.8290303	0.8761635		-6.3	+/-20
1-Methylphenanthrene	A	2.5000	2.6	0.7326040	0.7601497		3.8	+/-20
Fluoranthene	A	2.5000	2.6	1.0715980	1.1290490		5.4	+/-20
Dibenzothiophene	A	2.5000	2.8	0.8674458	0.9653991		11.3	+/-20
Pyrene	A	2.5000	2.5	1.1104570	1.1222460		1.1	+/-20
Benzo(a)anthracene	A	2.5000	2.3	0.8222601	0.8333426		-8.9	+/-20
Chrysene	A	2.5000	2.6	0.9340580	0.9617117		3.0	+/-20
Benzo(b)fluoranthene	A	2.5000	2.3	0.7491309	0.7897226		-7.0	
Benzo(j)fluoranthene	A	2.5000	2.5	0.9513865	0.9573485		0.6	
Benzo(k)fluoranthene	A	2.5000	2.3	0.9278309	0.9533091		-7.8	
Benzo(e)pyrene	A	2.5000	2.5	0.8518347	0.8360988		-1.8	+/-20
Benzo(a)pyrene	A	2.5000	2.2	0.7422947	0.7739619		-11.6	+/-20
Indeno(1,2,3-cd)pyrene	A	2.5000	2.2	0.7887712	0.8086680		-10.6	+/-20
Dibenzo(a,h)anthracene	A	2.5000	2.3	0.6549683	0.7164658		-8.4	+/-20
Benzo(g,h,i)perylene	A	2.5000	2.4	0.7663214	0.7209995		-5.9	+/-20
Perylene	A	2.5000	2.4	0.8135951	0.7860752		-3.4	+/-20
Naphthalene-d8	A	2.5000	2.99	1.1542130	1.3787570		19.5	+/-20
Acenaphthene-d10	A	2.5000	3.02	0.5635830	0.6801208		20.7	+/-20
Phenanthrene-d10	A	2.5000	2.67	1.0807840	1.1540520		6.8	+/-20

* Values outside of QC limits

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043010.D	Calibration Date:	04/30/2021
Sequence:	SJD0305	Injection Date:	04/30/21
Lab Sample ID:	SJD0305-SCV1	Injection Time:	14:41
Sequence Name:	Secondary Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Chrysene-d12	A	2.5000	2.83	0.7267179	0.8221423		13.1	+/-20
Perylene-d12	A	2.5000	2.51	0.6899017	0.7793940		0.2	+/-20

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

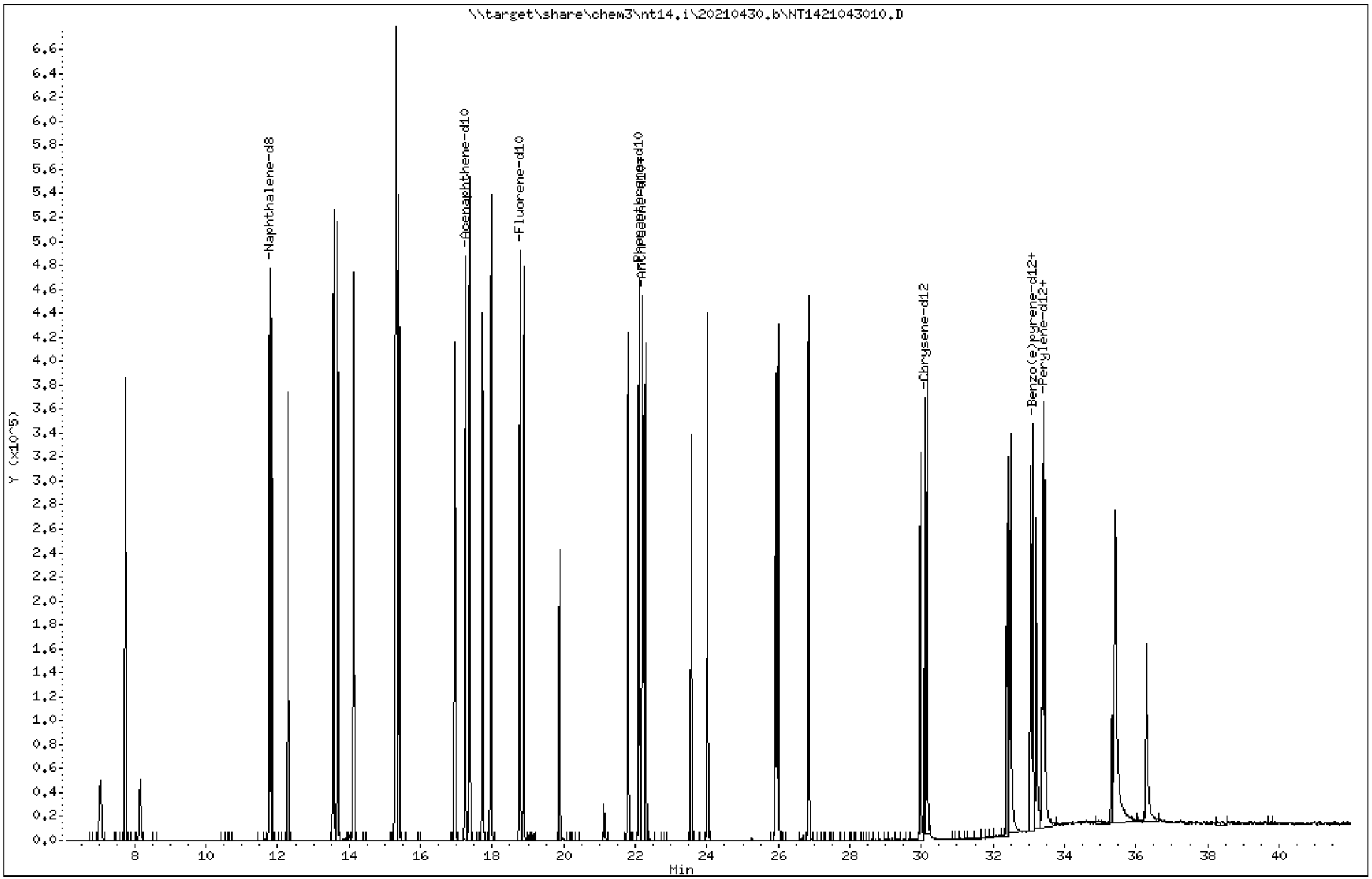
Sample Info: SJD0305-SCV1

Column phase: Rxi-17Sil MS

Instrument: nt14.i

Operator: VTS

Column diameter: 0.25



Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

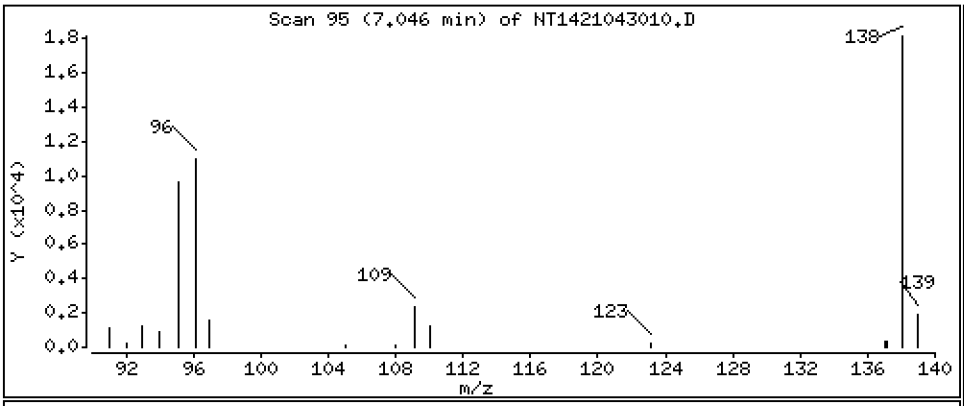
Operator: VTS

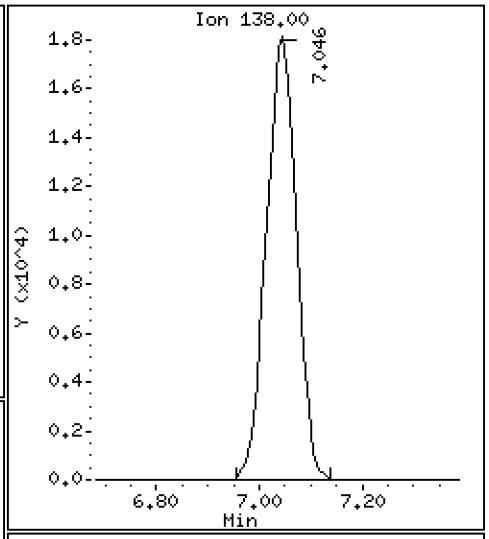
Column phase: Rxi-17Sil MS

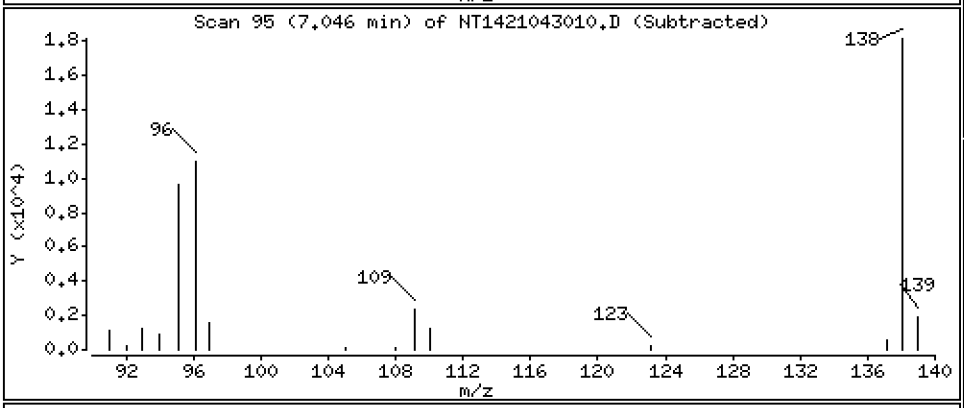
Column diameter: 0.25

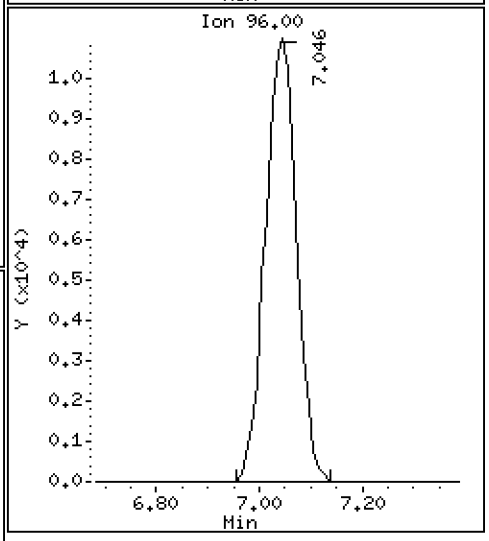
1 trans-Decalin

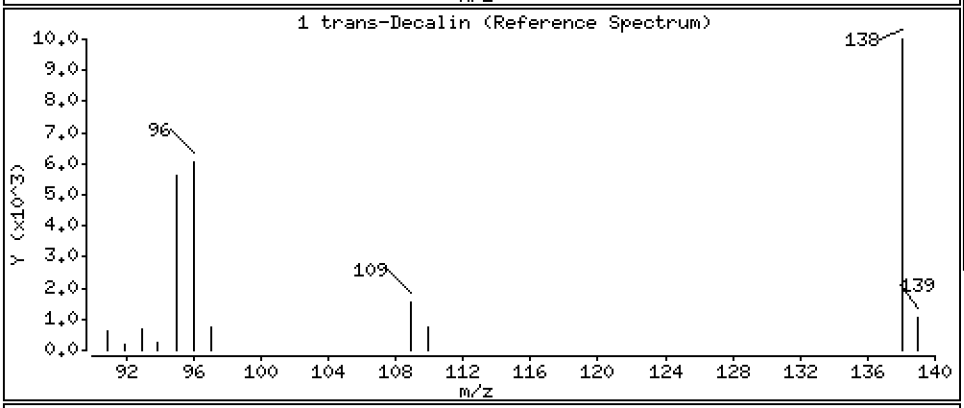
Concentration: 2.843 ug/mL

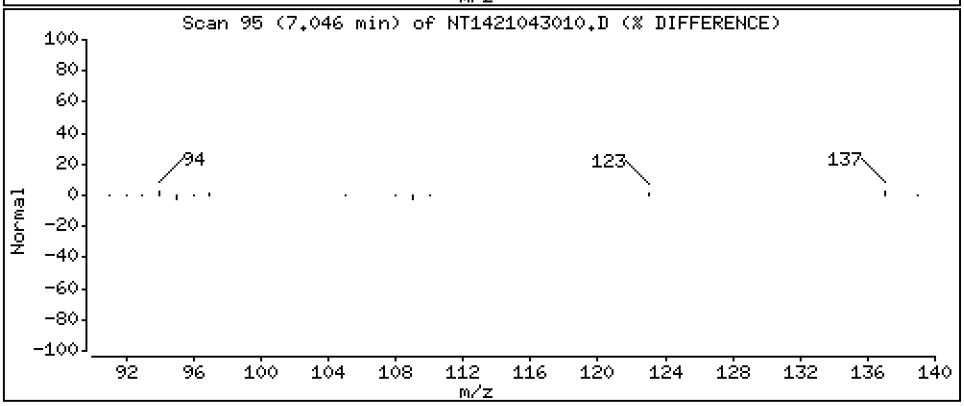












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

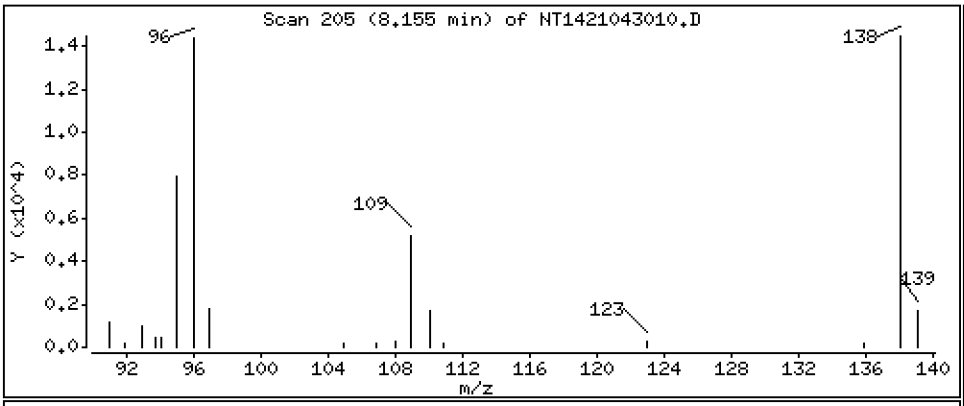
Operator: VTS

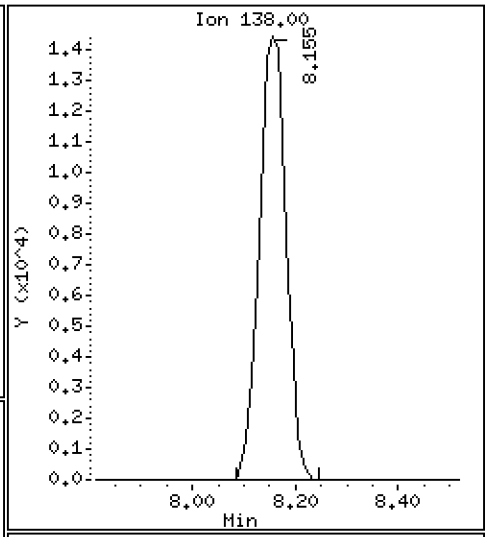
Column phase: Rxi-17Sil MS

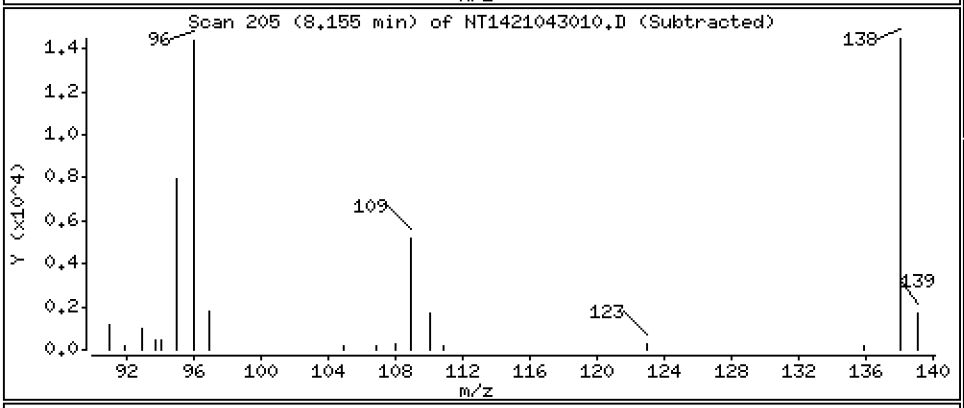
Column diameter: 0.25

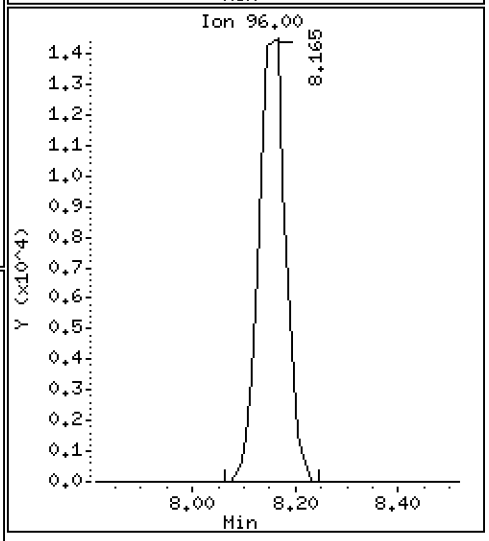
2 cis-Decalin

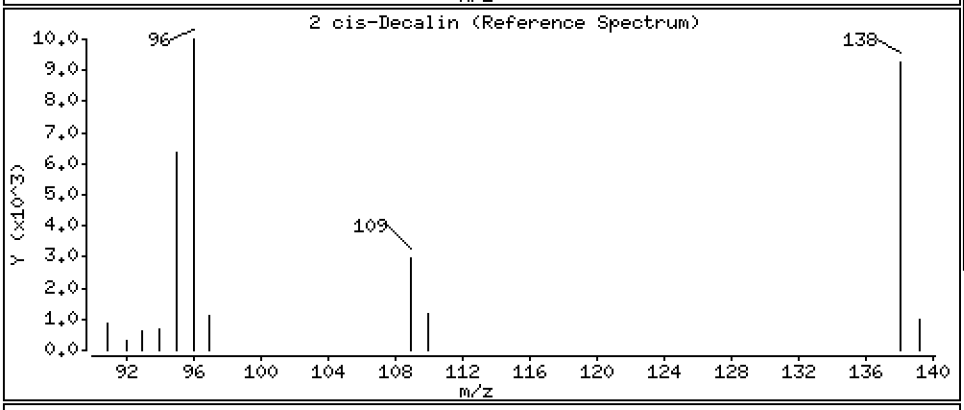
Concentration: 2.910 ug/mL

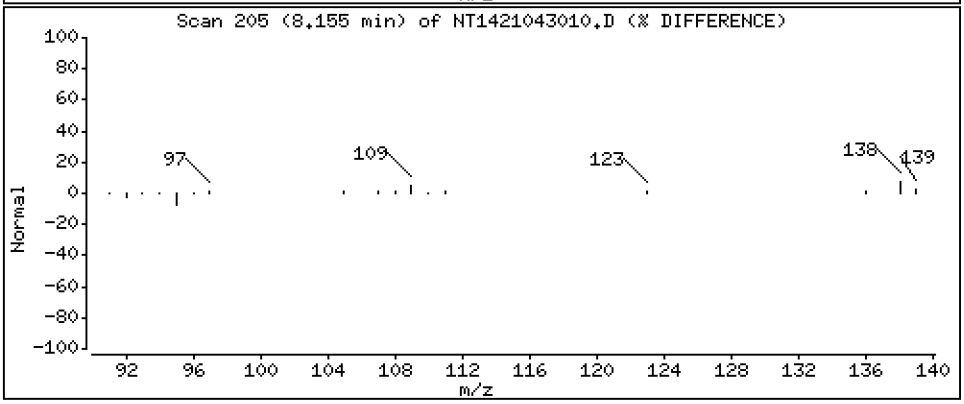












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

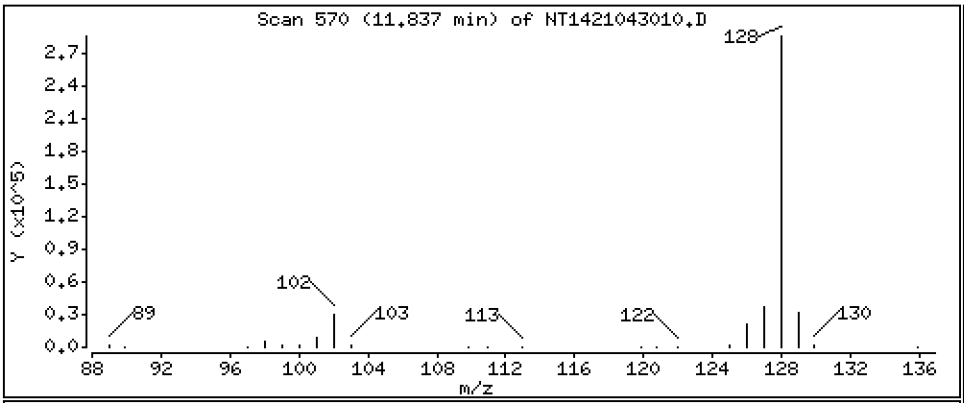
Operator: VTS

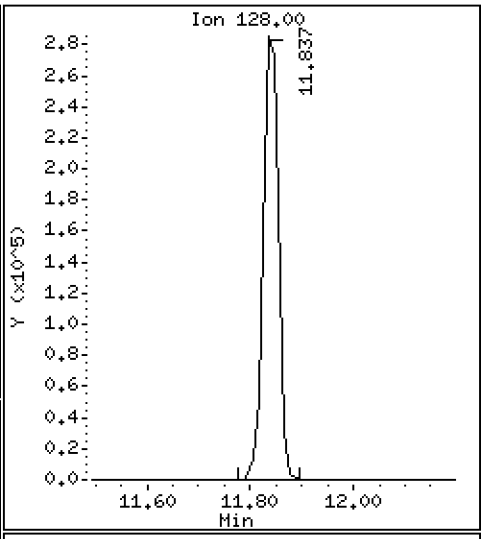
Column phase: Rxi-17Sil MS

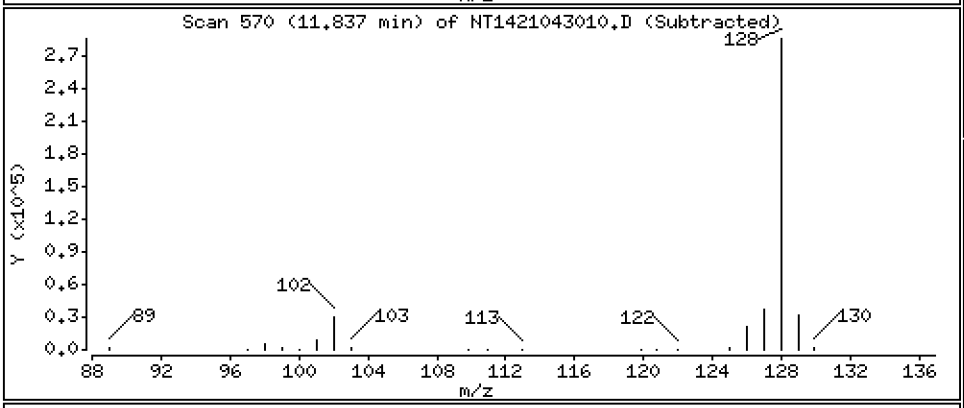
Column diameter: 0.25

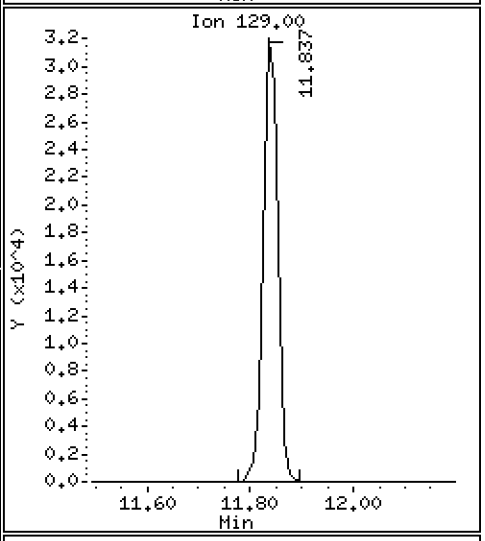
7 Naphthalene

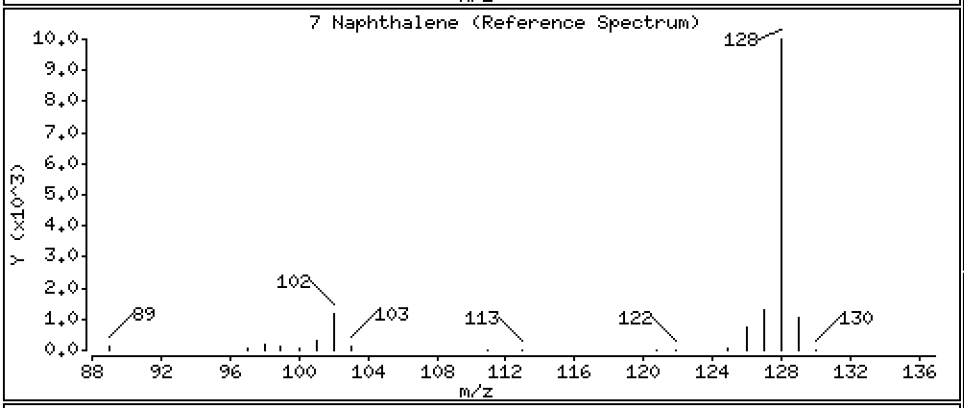
Concentration: 2.783 ug/mL

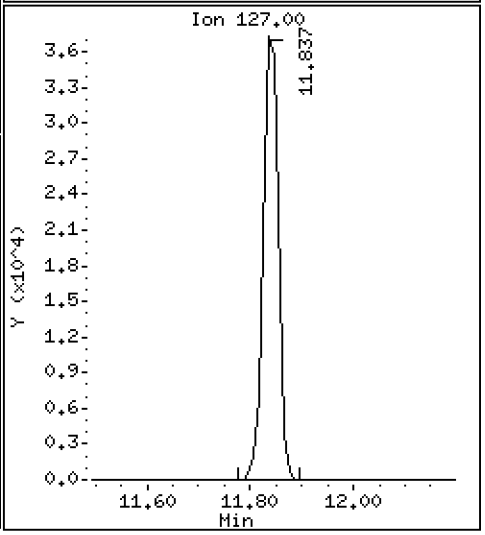


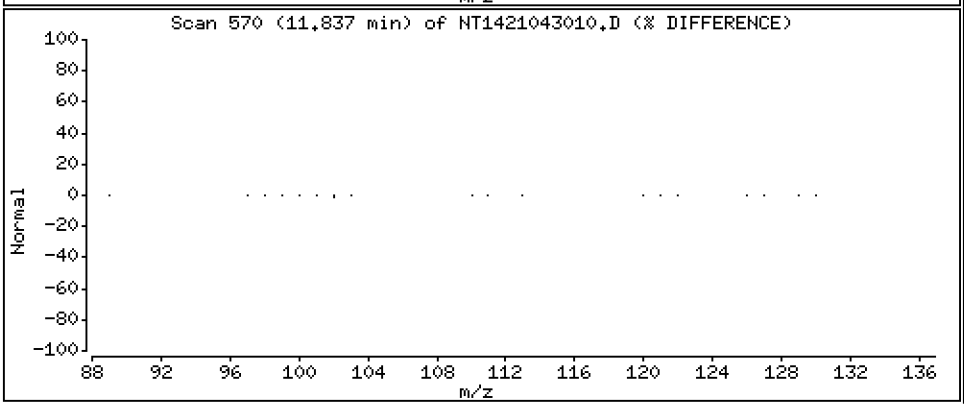












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

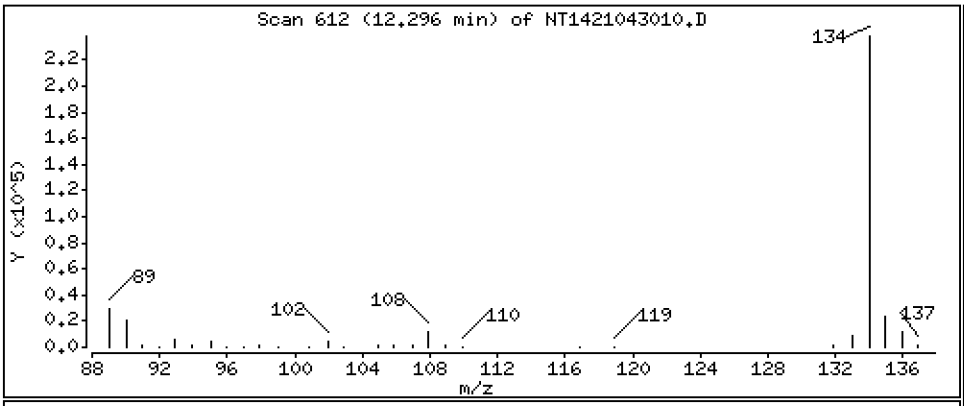
Operator: VTS

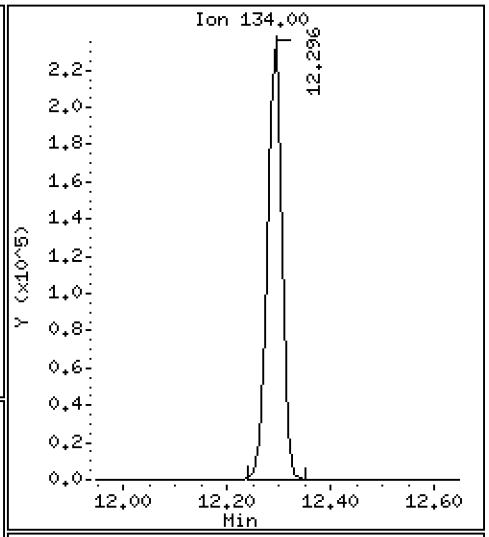
Column phase: Rxi-17Sil MS

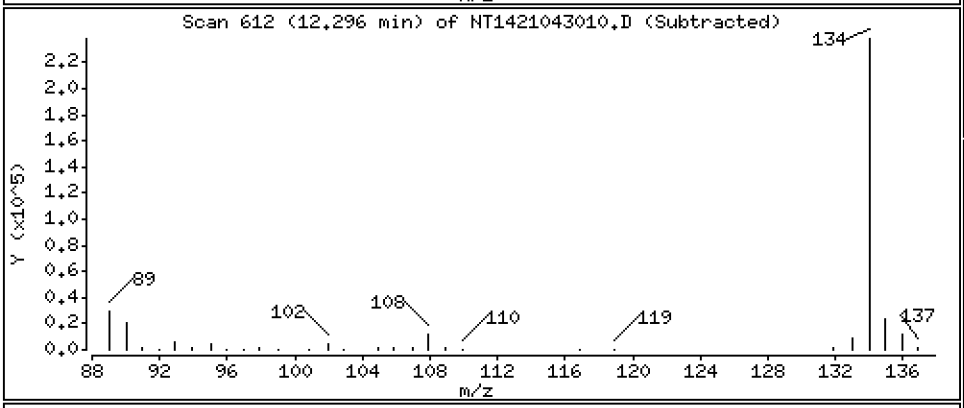
Column diameter: 0.25

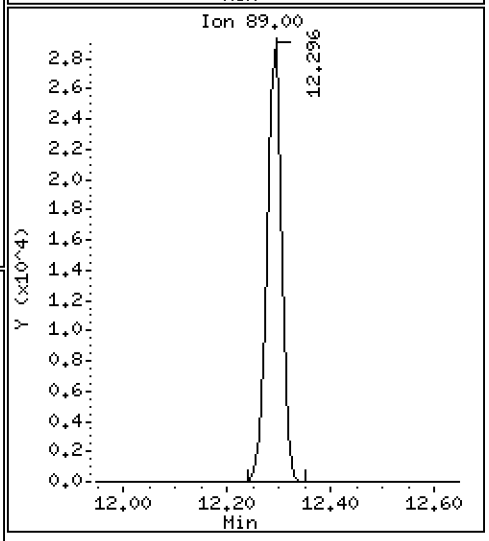
12 Benzo(b)thiophene

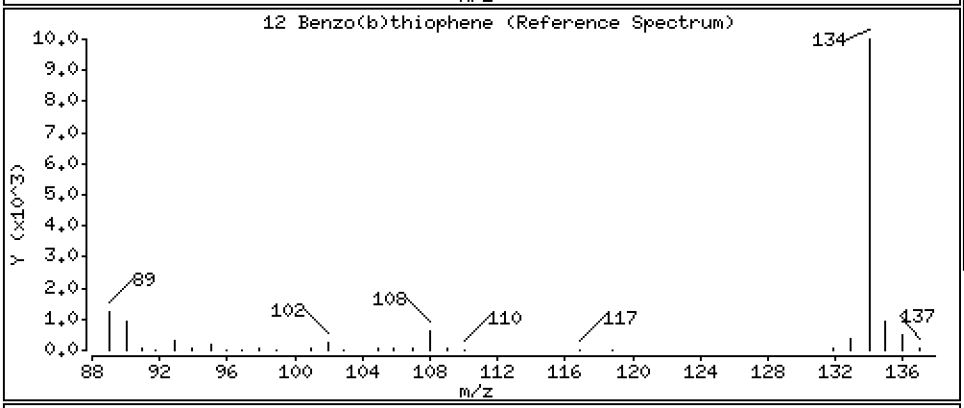
Concentration: 2.787 ug/mL

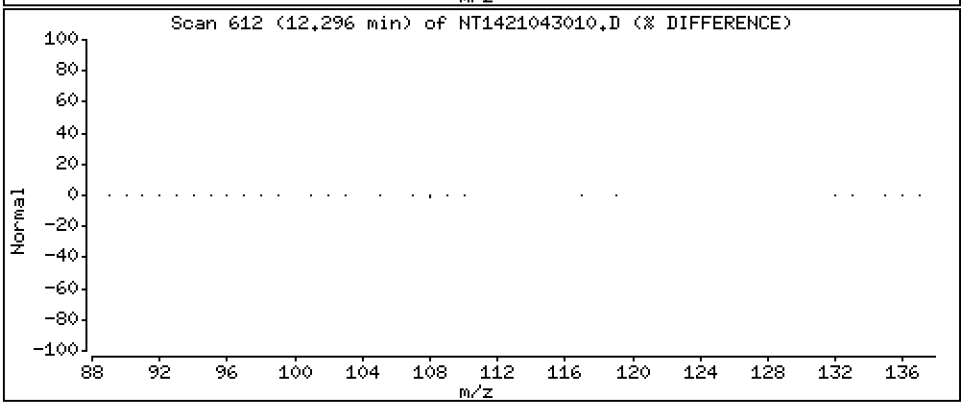












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

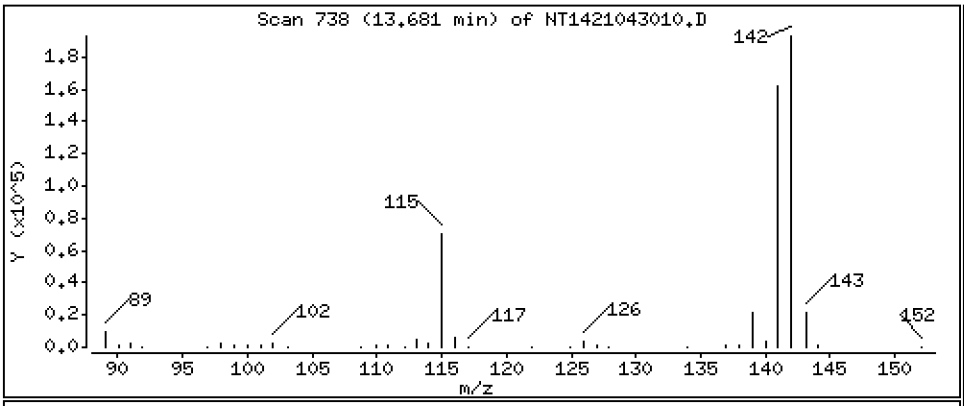
Operator: VTS

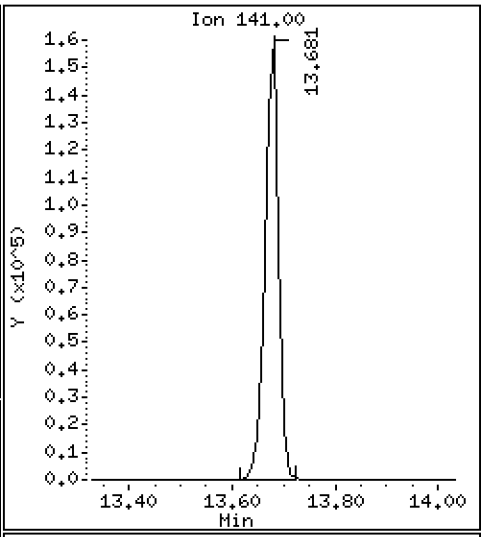
Column phase: Rxi-17Sil MS

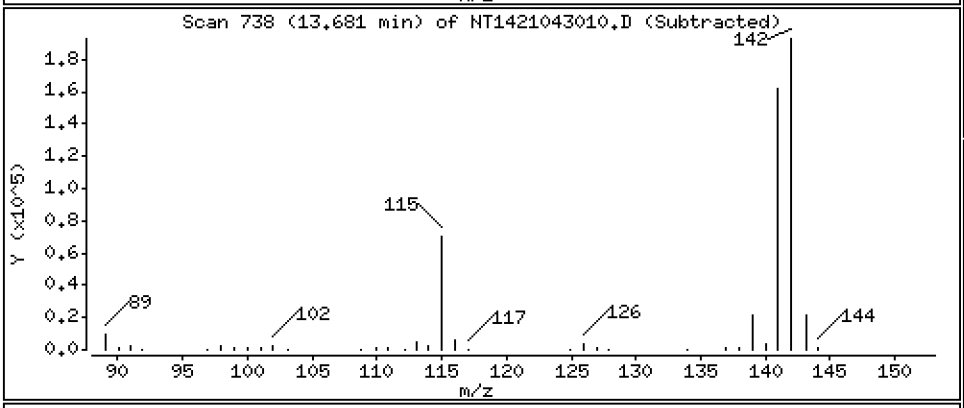
Column diameter: 0.25

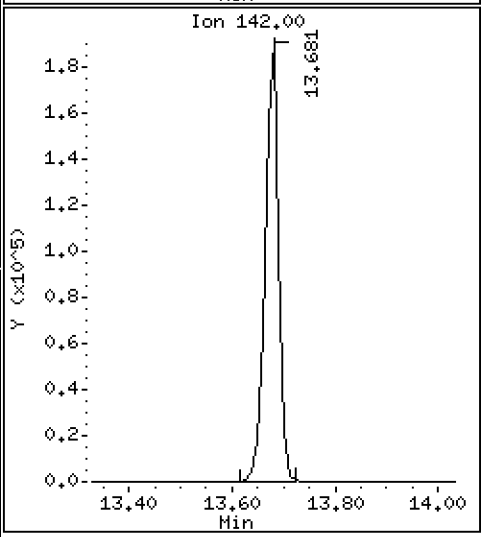
16 2-Methylnaphthalene

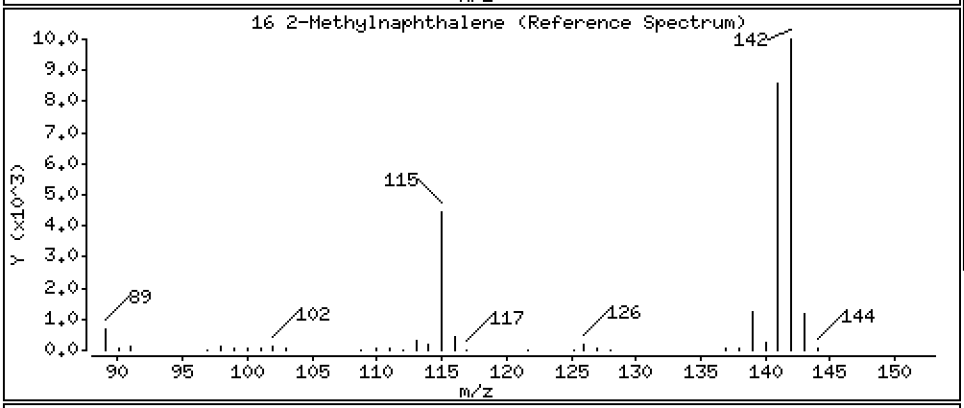
Concentration: 2.845 ug/mL

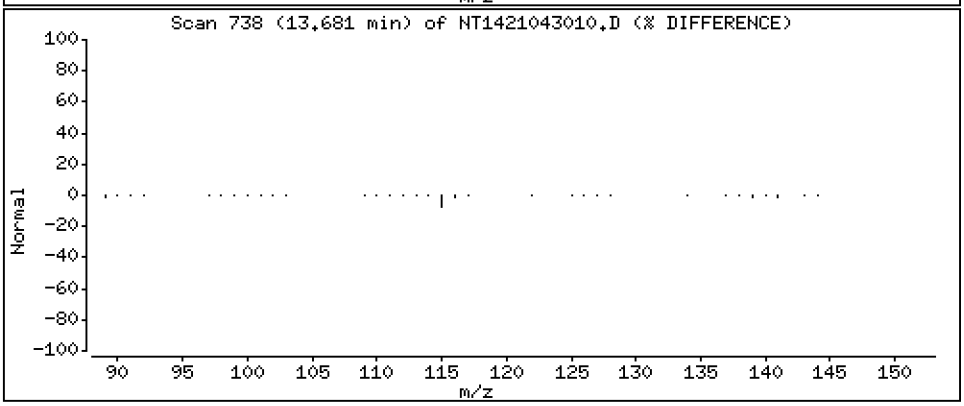












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

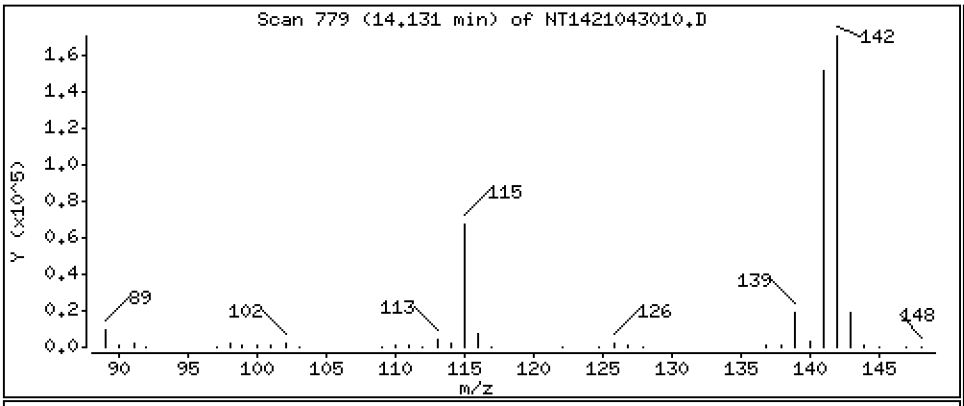
Operator: VTS

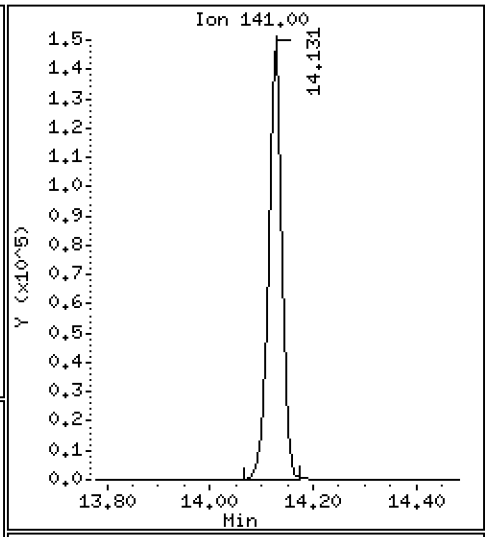
Column phase: Rxi-17Sil MS

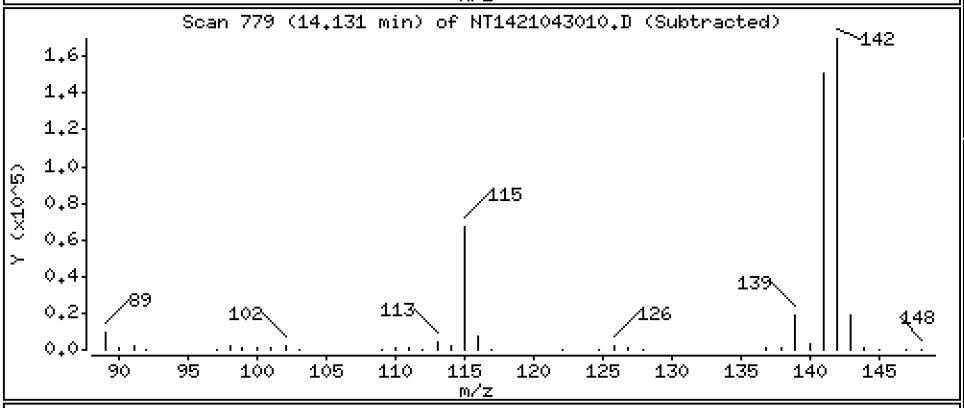
Column diameter: 0.25

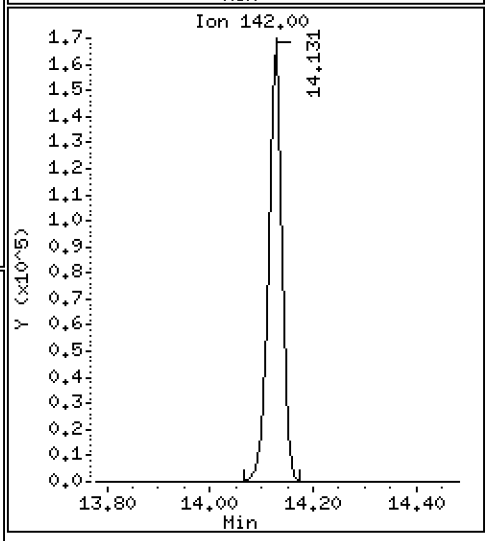
17 1-methylnaphthalene

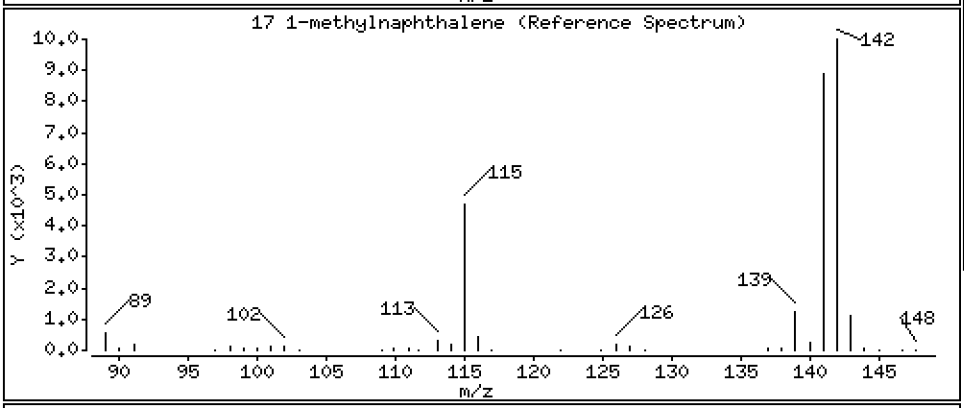
Concentration: 2.821 ug/mL

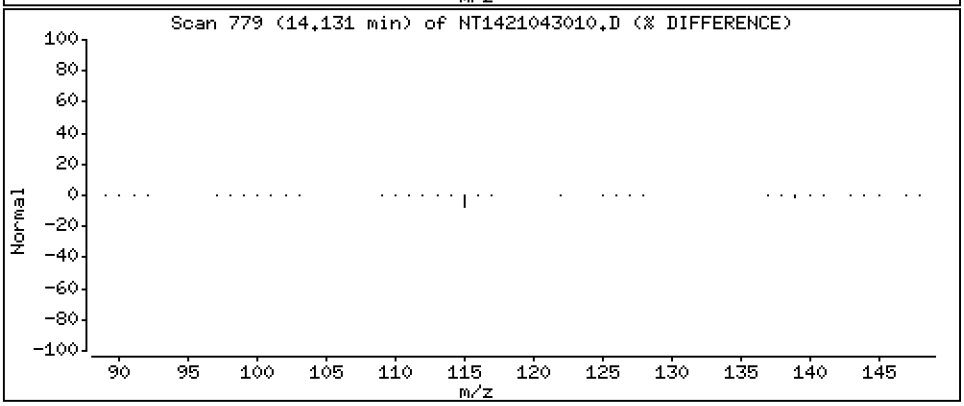












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

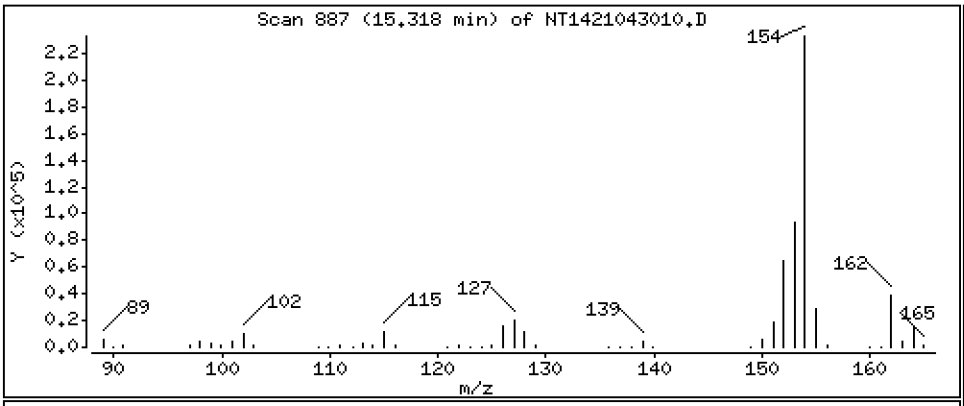
Operator: VTS

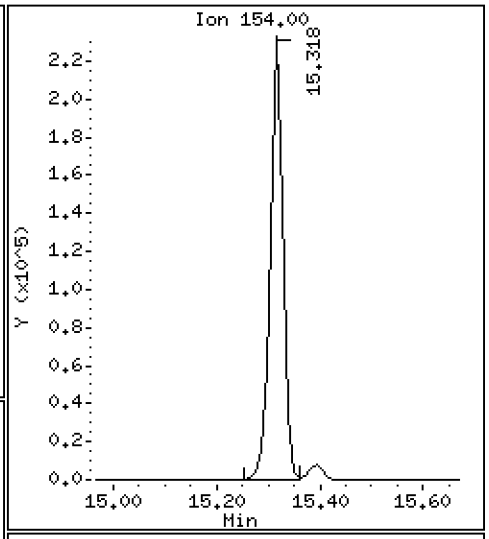
Column phase: Rxi-17Sil MS

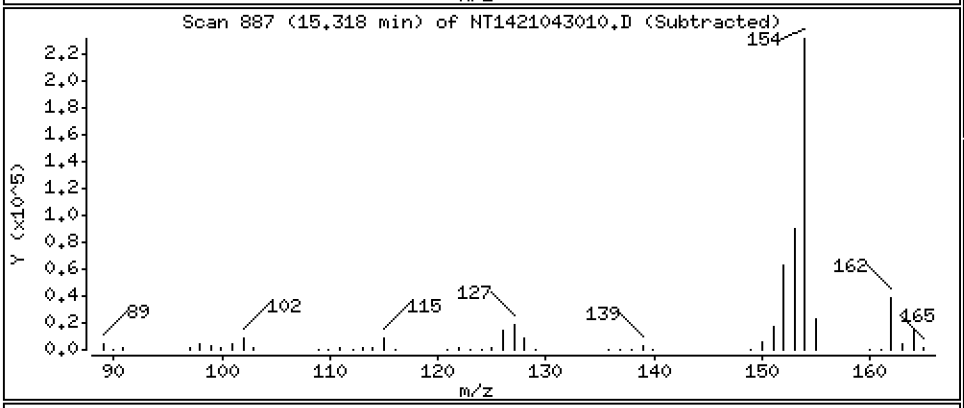
Column diameter: 0.25

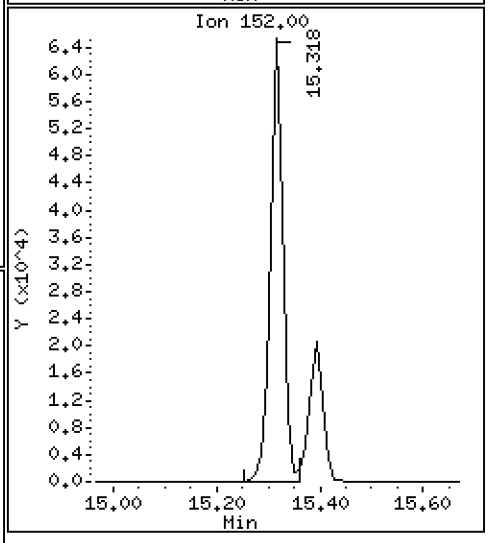
18 Biphenyl

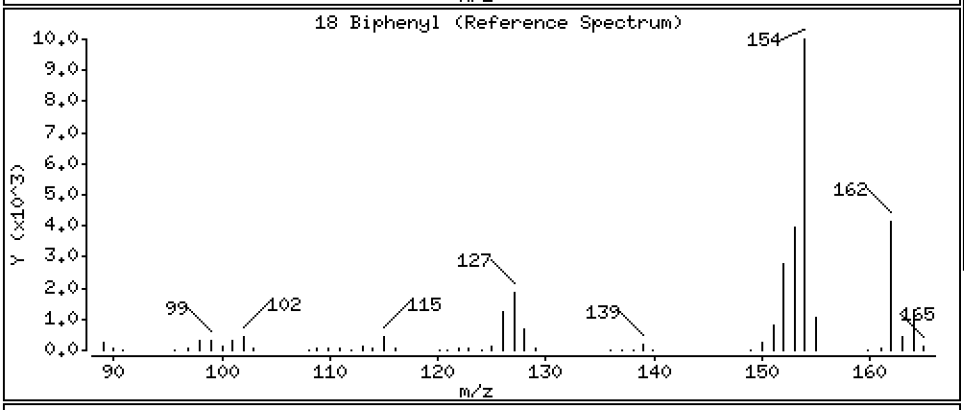
Concentration: 2.765 ug/mL

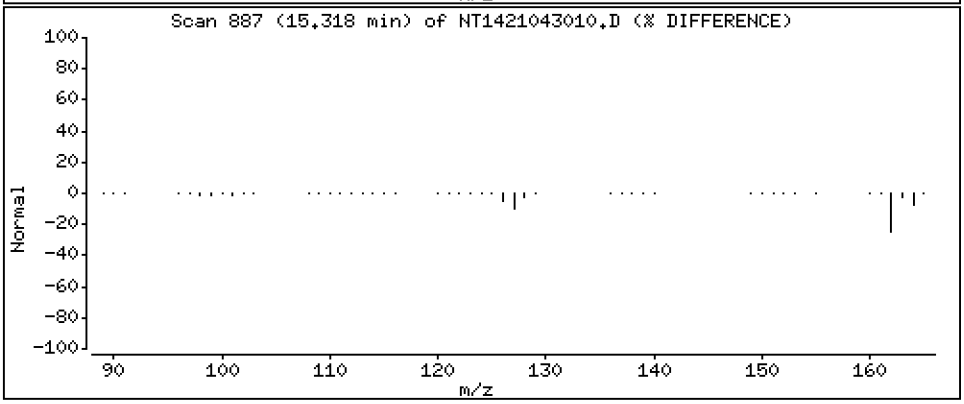












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

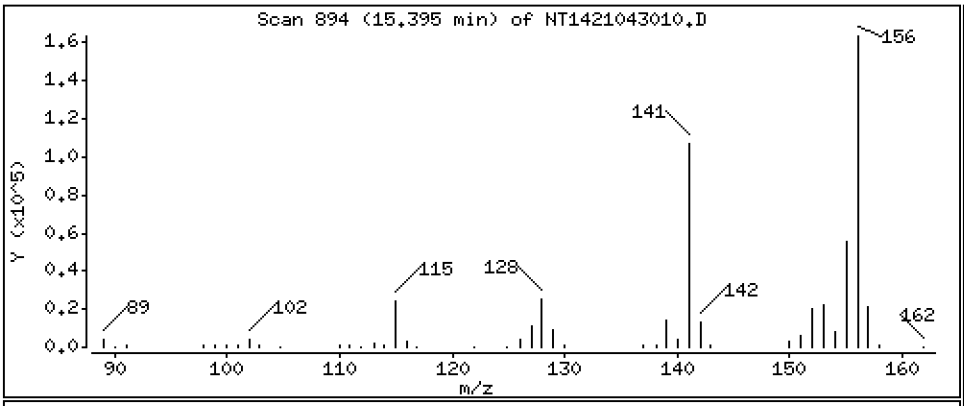
Operator: VTS

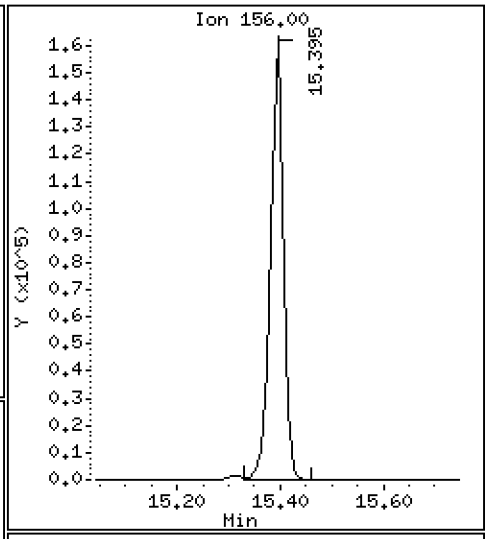
Column phase: Rxi-17Sil MS

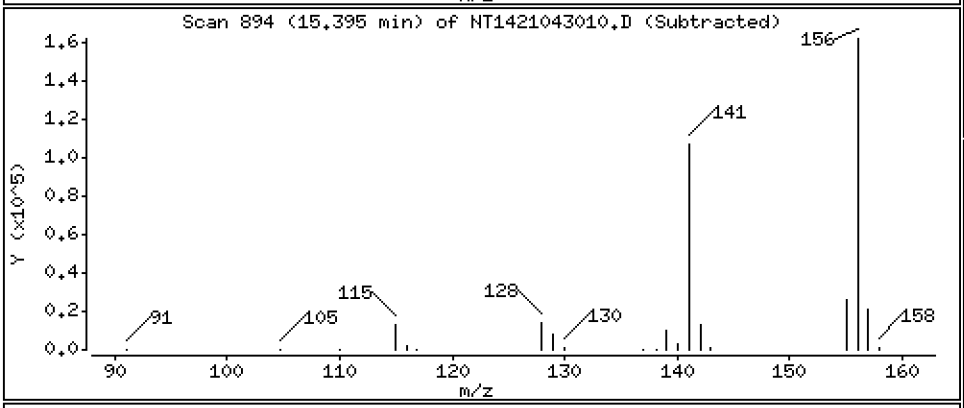
Column diameter: 0.25

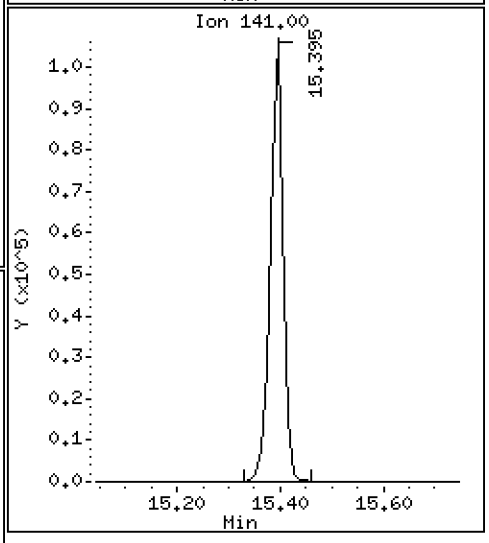
19 2,6-Dimethylnaphthalene

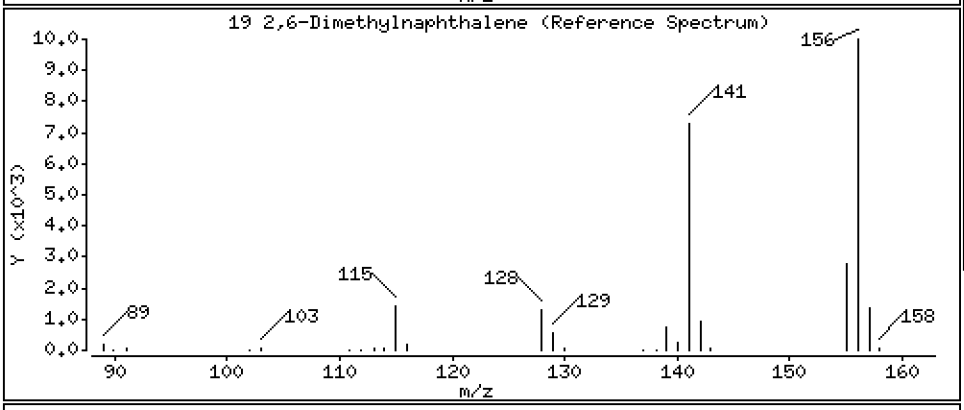
Concentration: 2.822 ug/mL

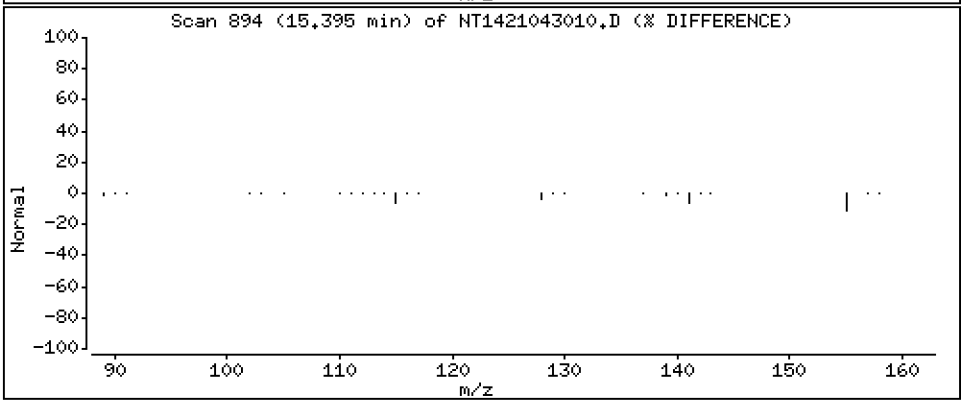












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

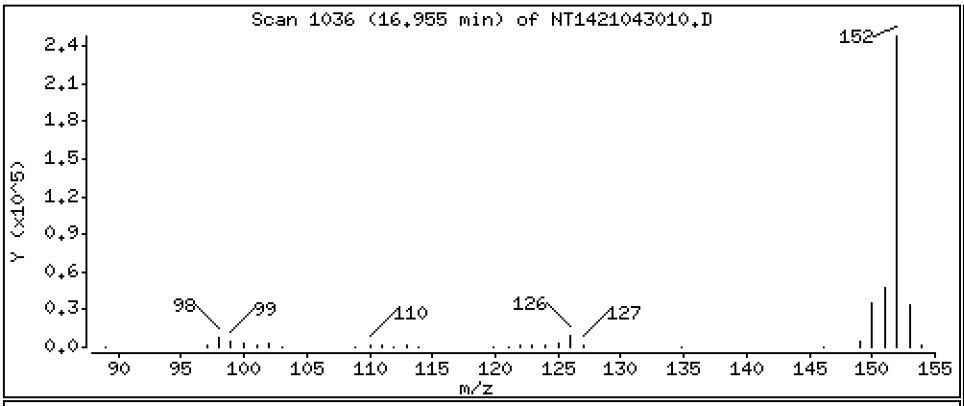
Operator: VTS

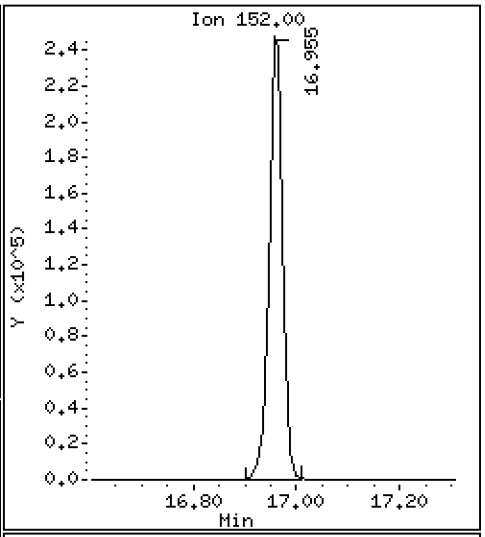
Column phase: Rxi-17Sil MS

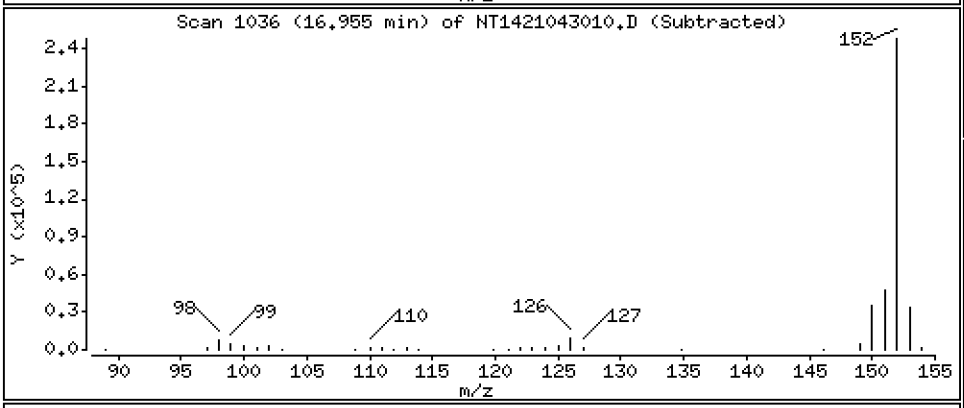
Column diameter: 0.25

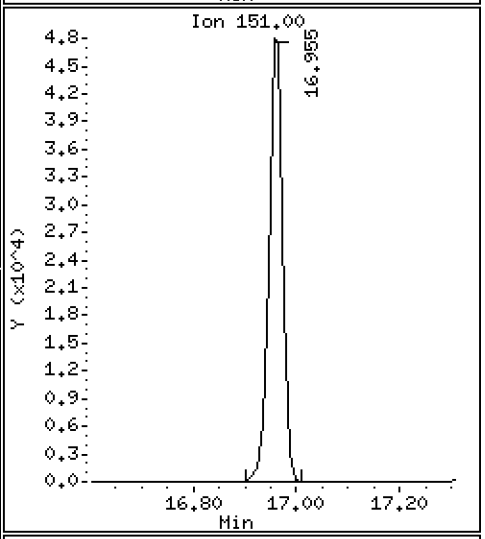
20 Acenaphthylene

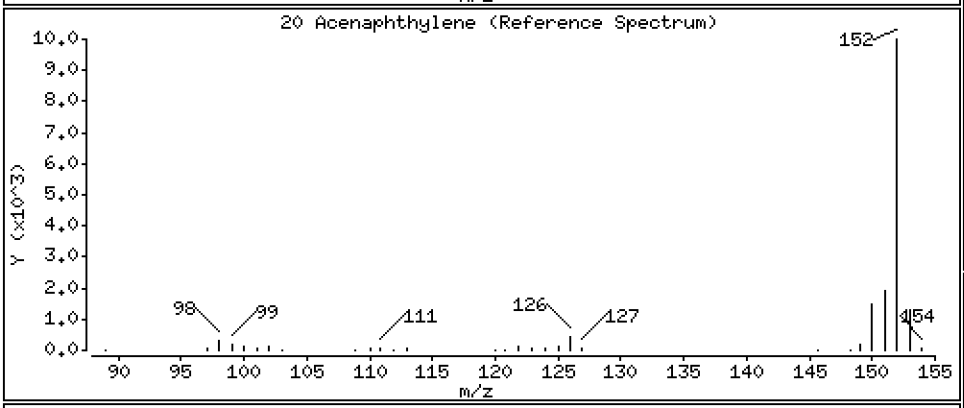
Concentration: 2.889 ug/mL

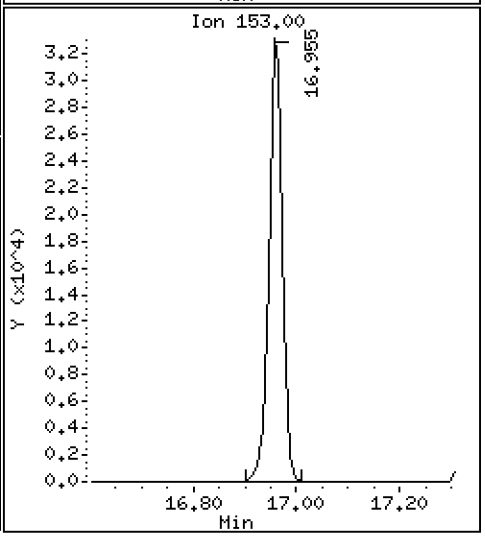


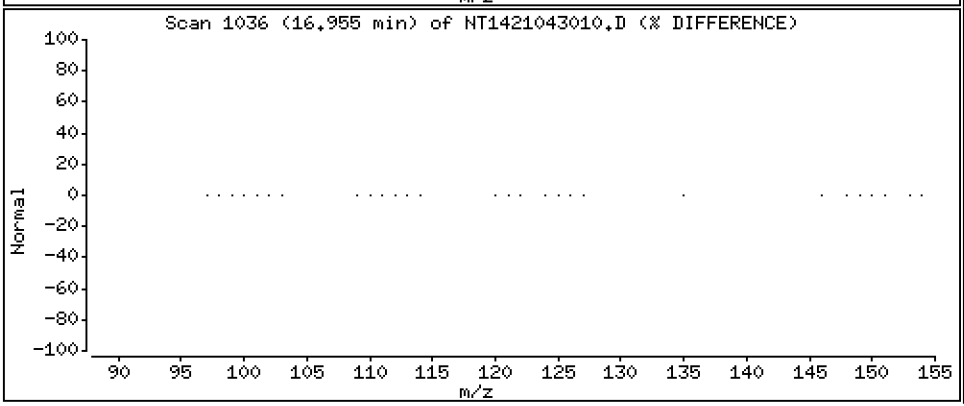












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

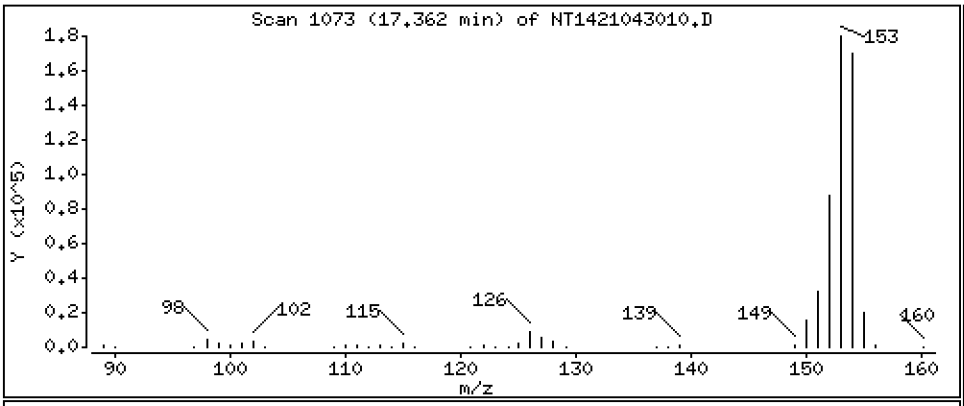
Operator: VTS

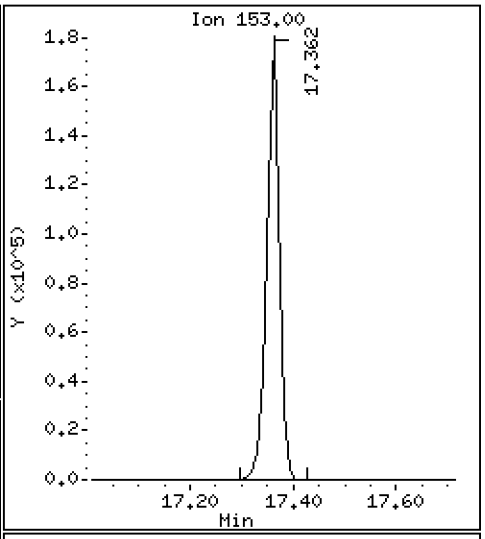
Column phase: Rxi-17Sil MS

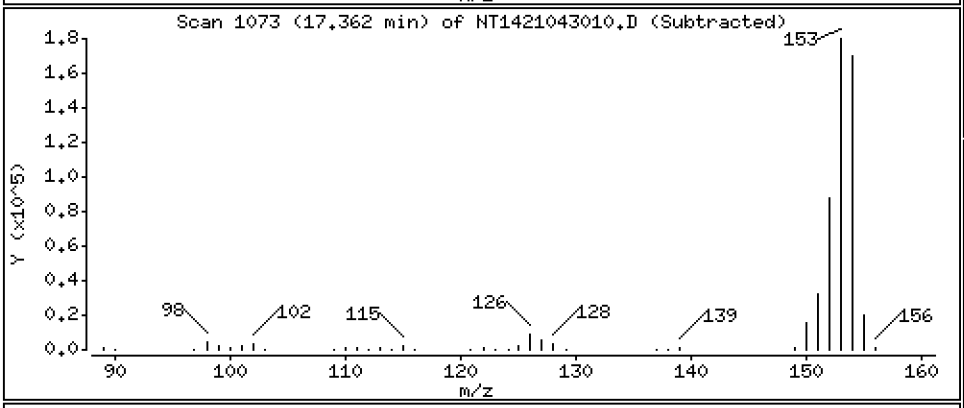
Column diameter: 0.25

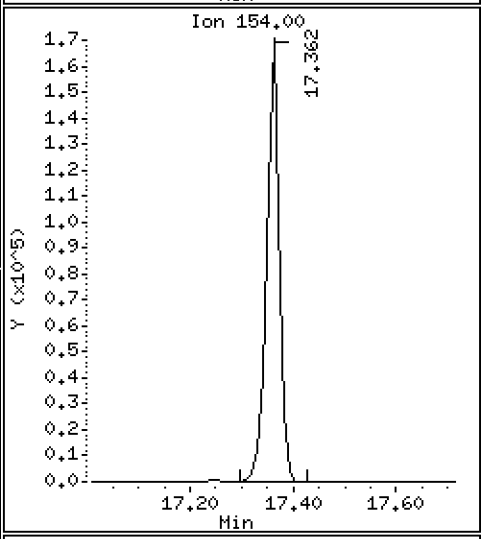
22 Acenaphthene

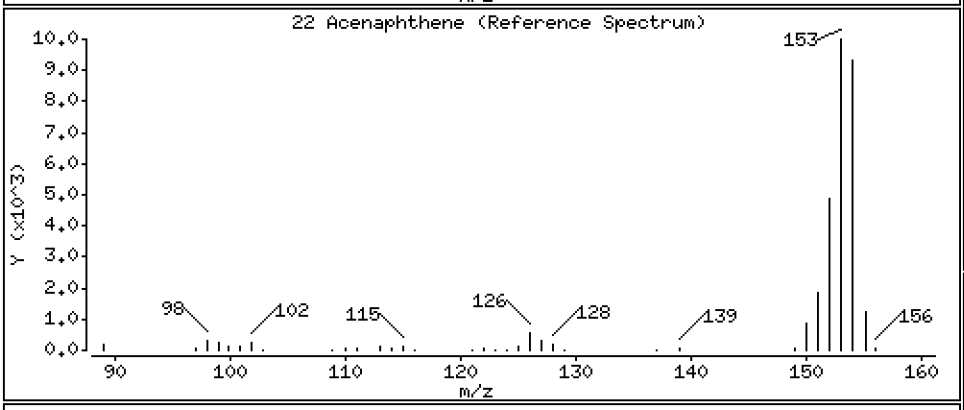
Concentration: 3.010 ug/mL

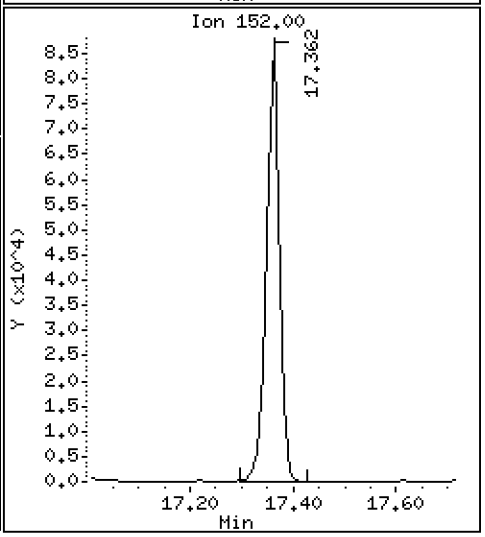


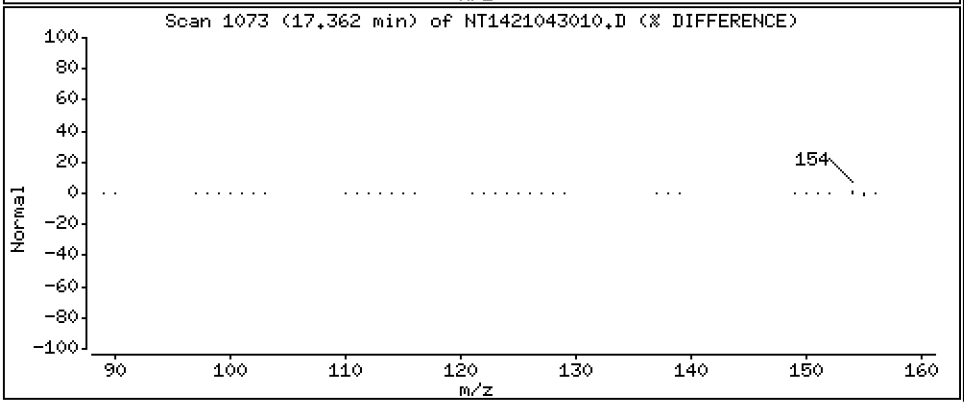












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

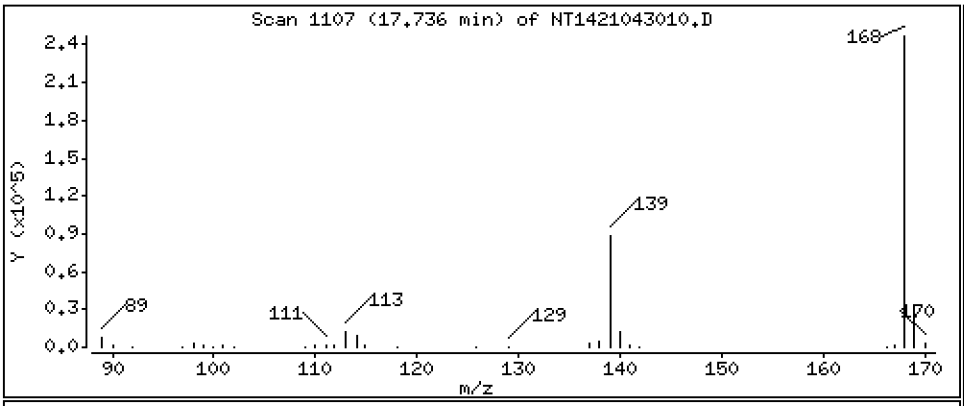
Operator: VTS

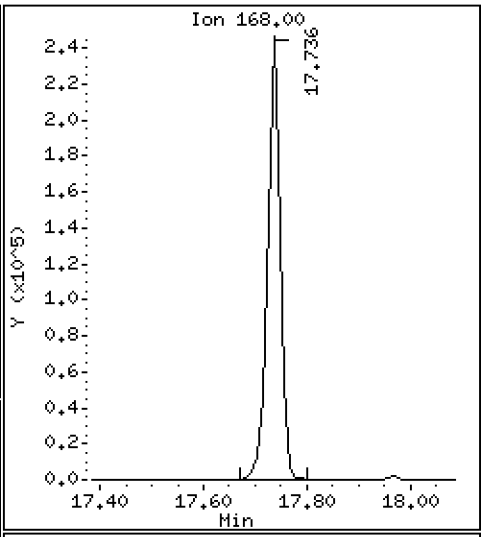
Column phase: Rxi-17Sil MS

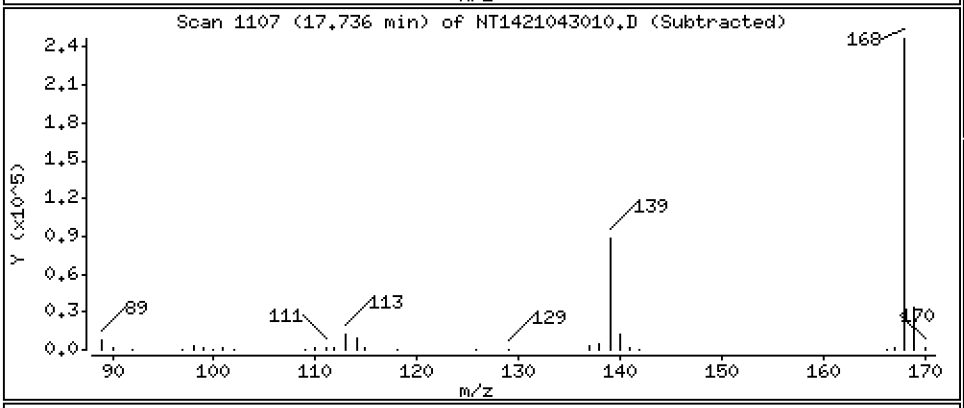
Column diameter: 0.25

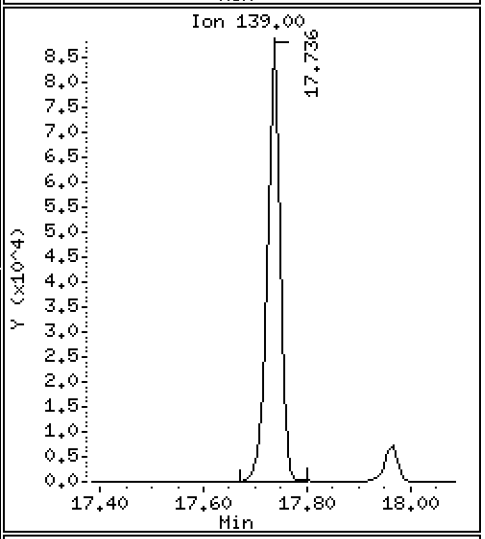
23 Dibenzofuran

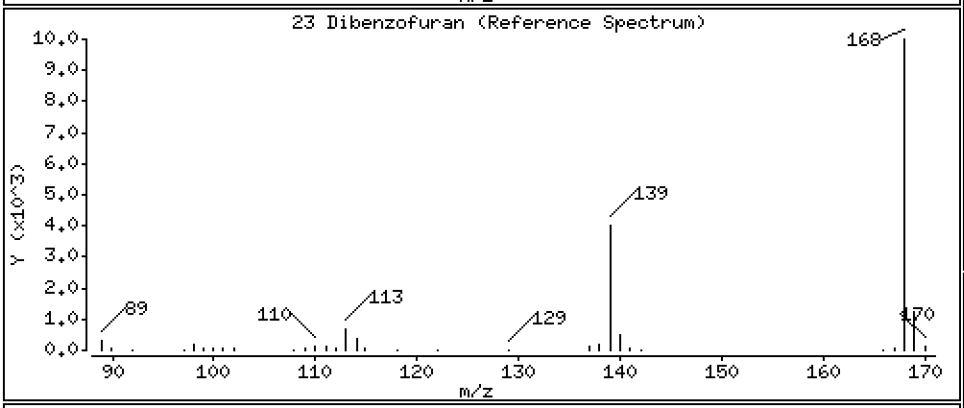
Concentration: 2.768 ug/mL

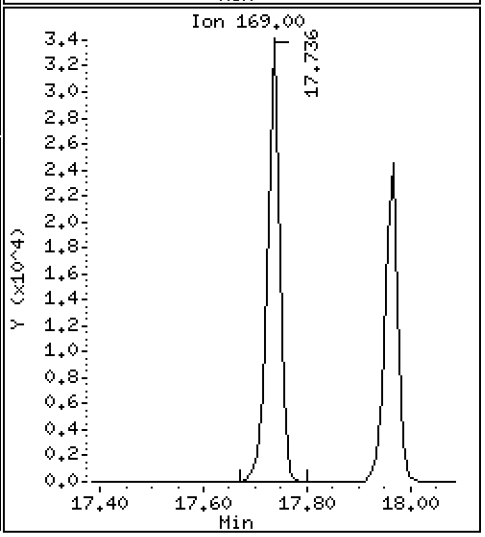


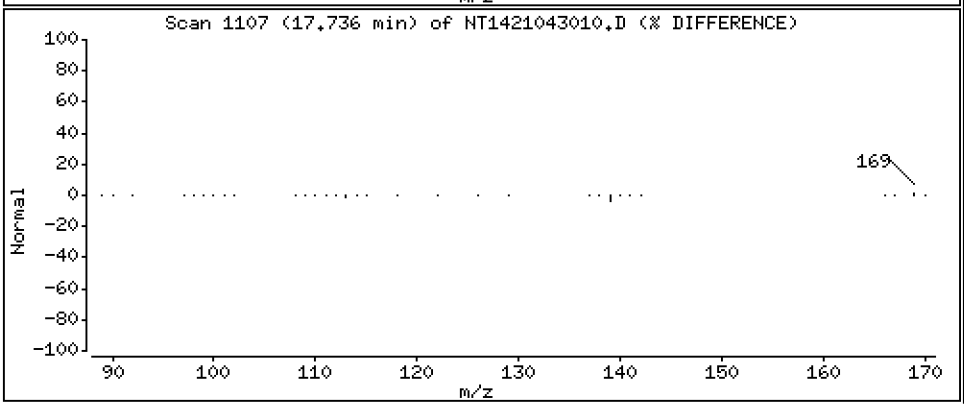












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

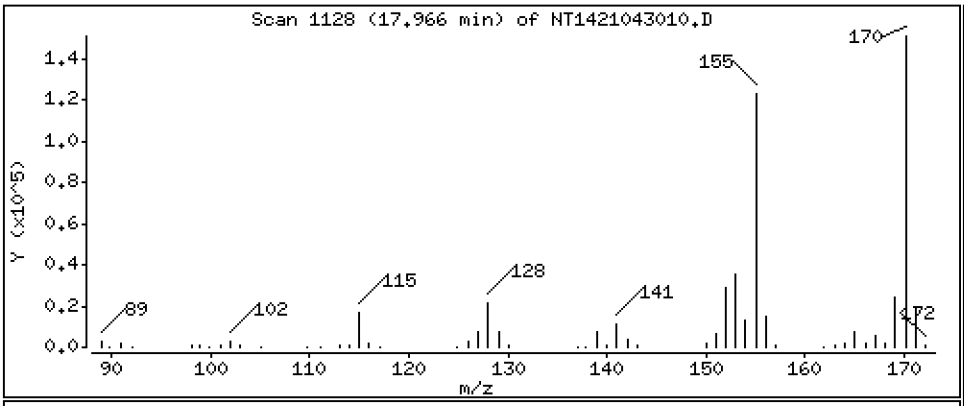
Operator: VTS

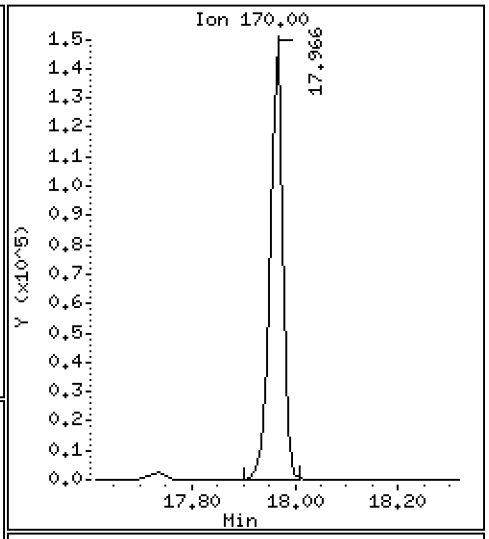
Column phase: Rxi-17Sil MS

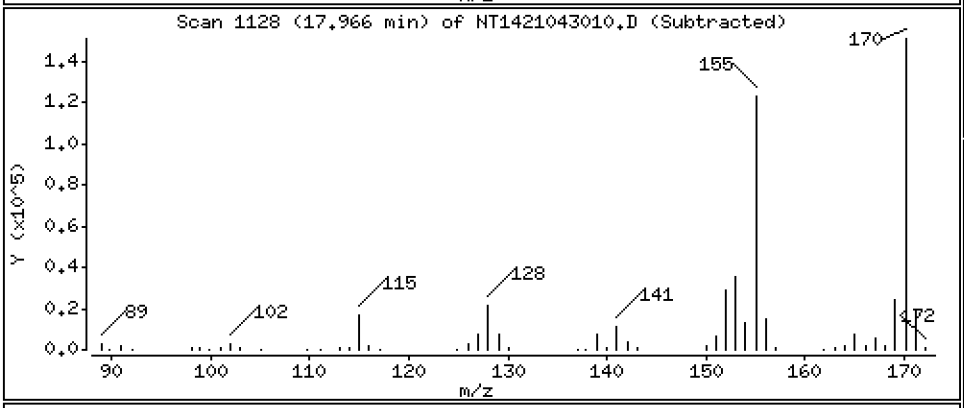
Column diameter: 0.25

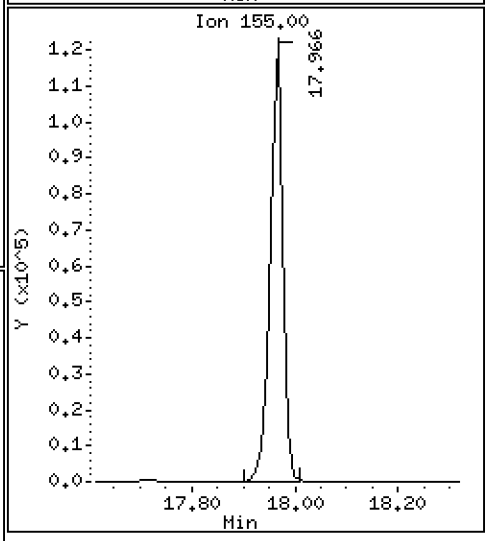
24 1,6,7-Trimethylnaphthalene

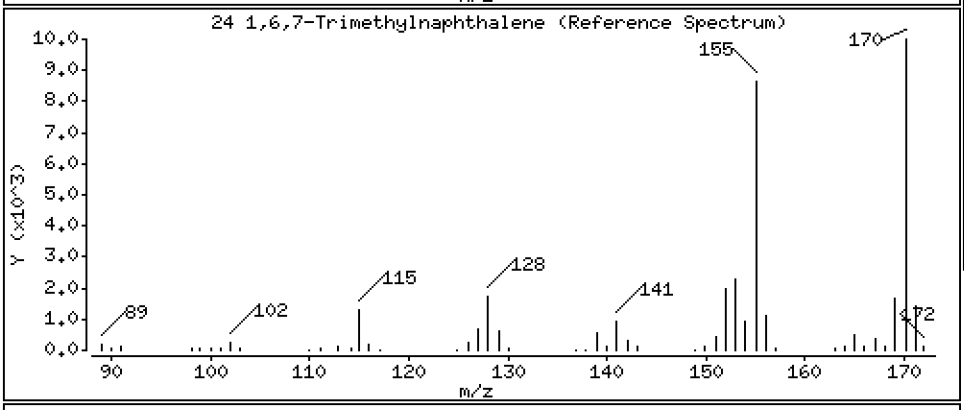
Concentration: 2.923 ug/mL

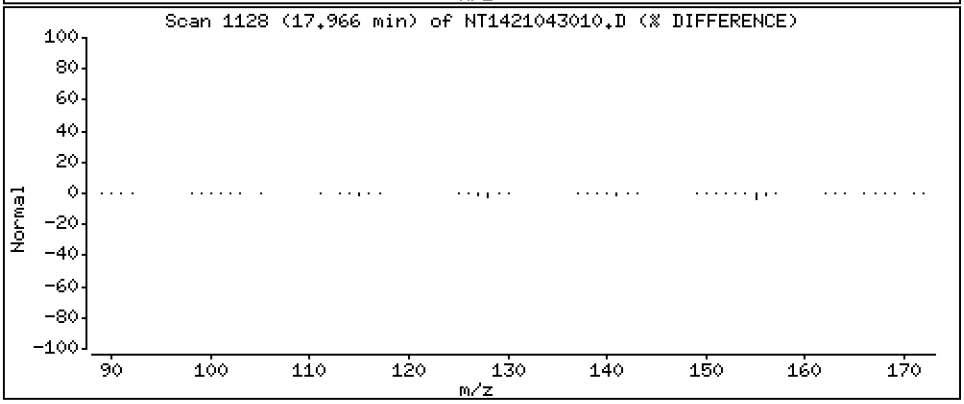












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

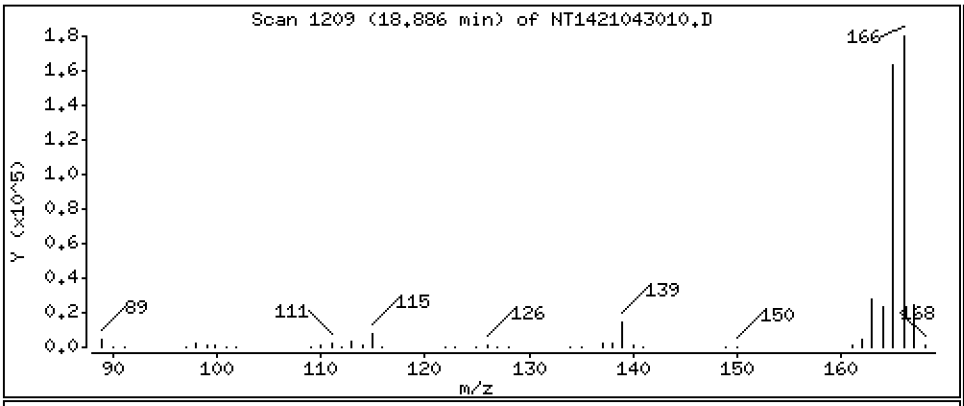
Operator: VTS

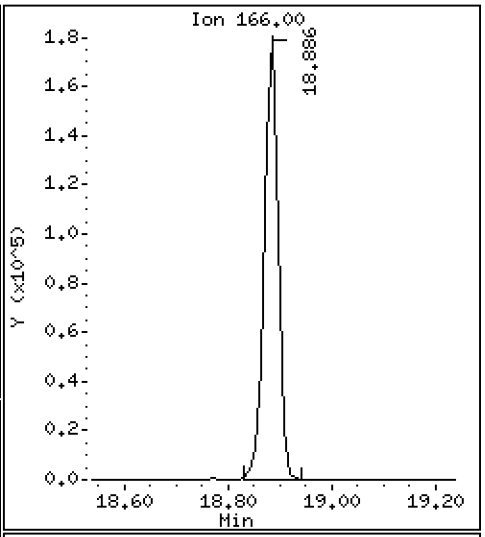
Column phase: Rxi-17Sil MS

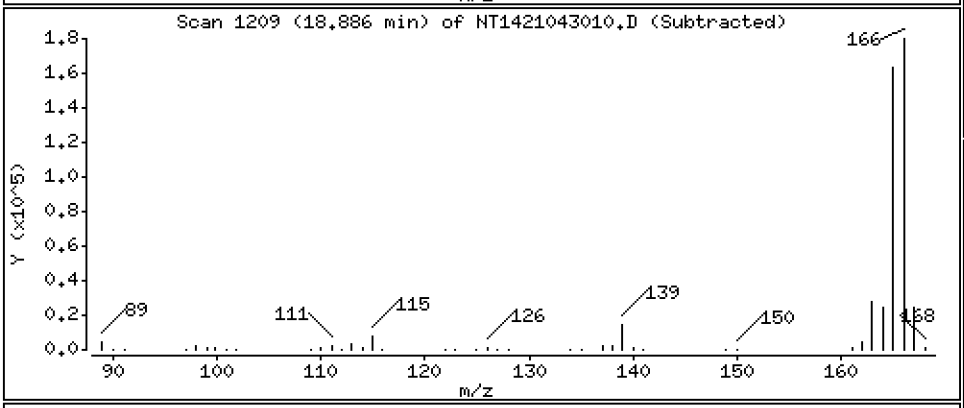
Column diameter: 0.25

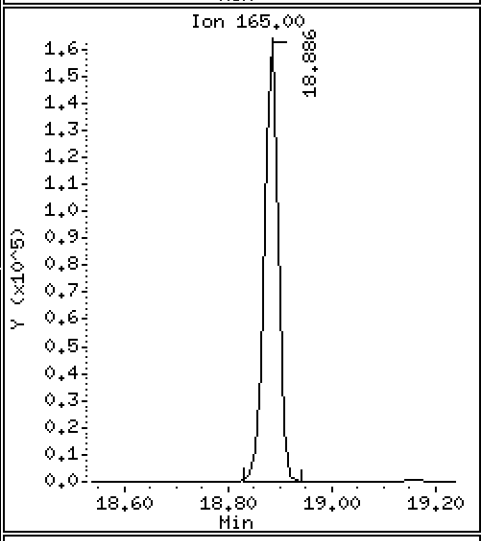
26 Fluorene

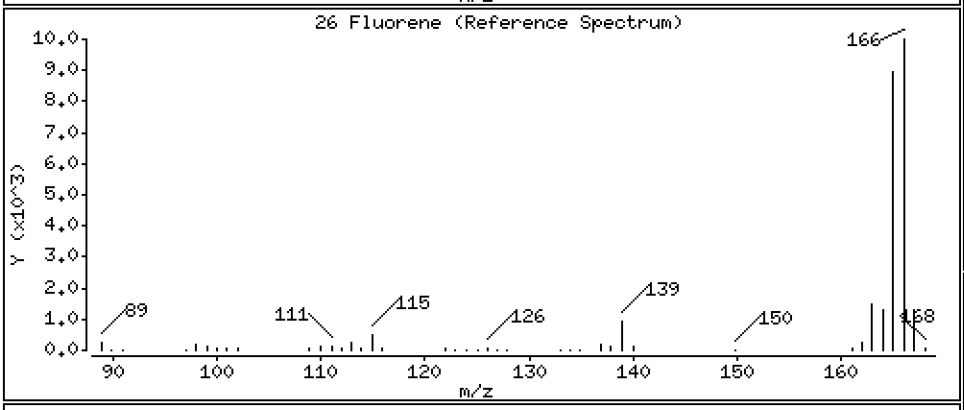
Concentration: 2.844 ug/mL

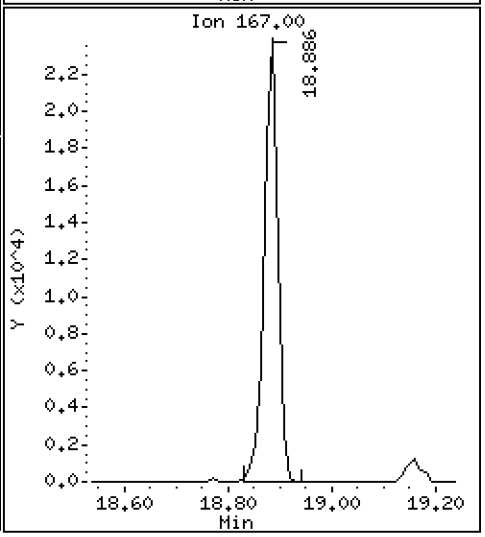


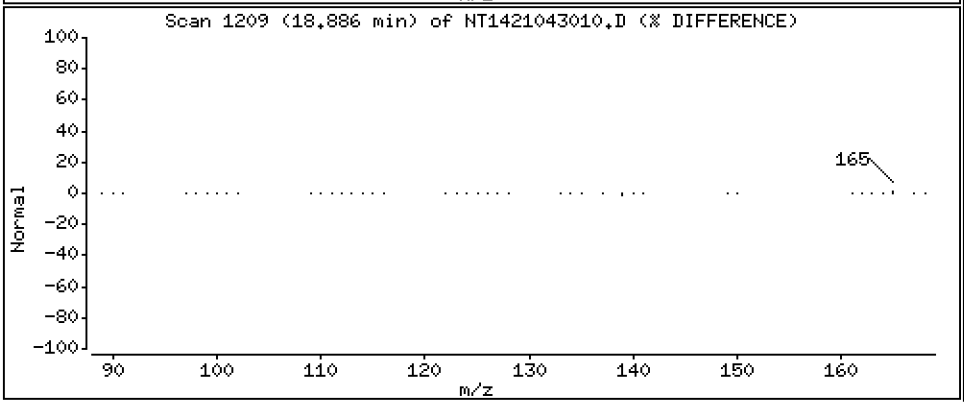












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

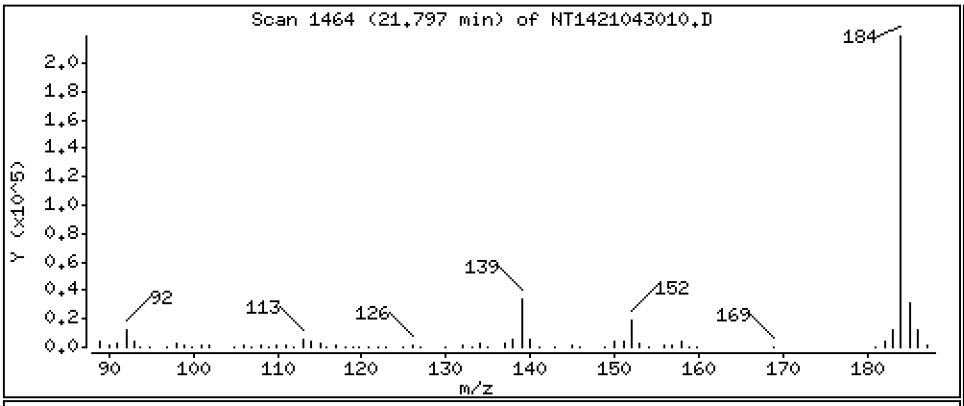
Operator: VTS

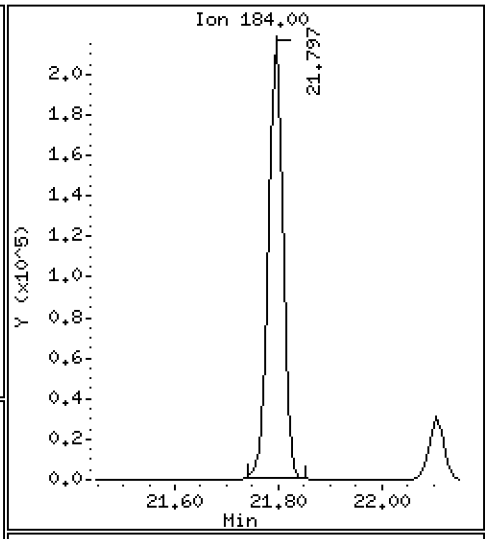
Column phase: Rxi-17Sil MS

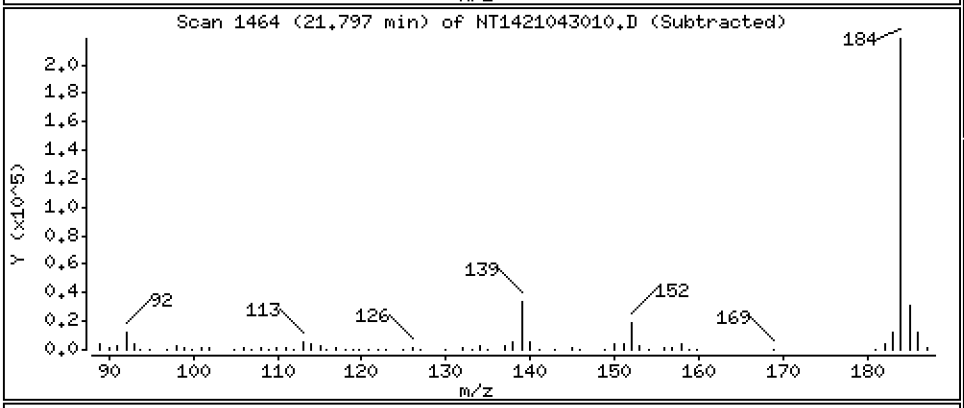
Column diameter: 0.25

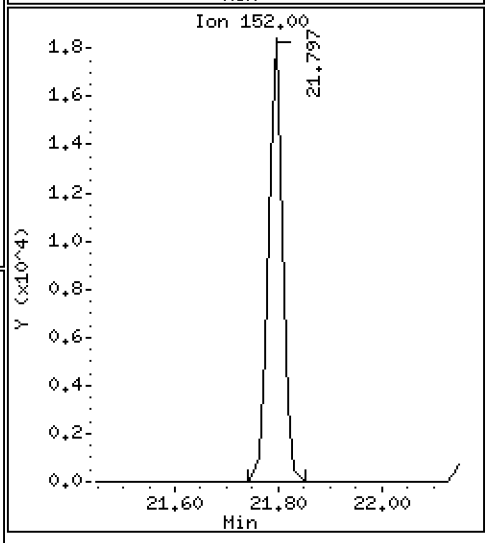
30 Dibenzothiophene

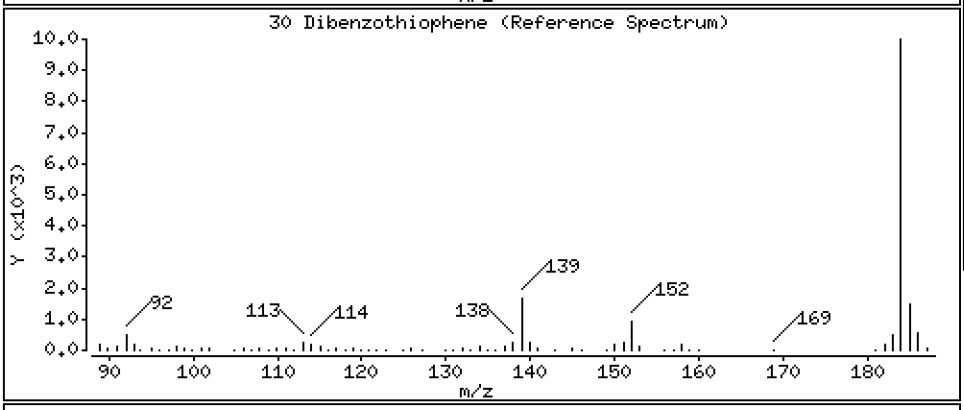
Concentration: 2.782 ug/mL

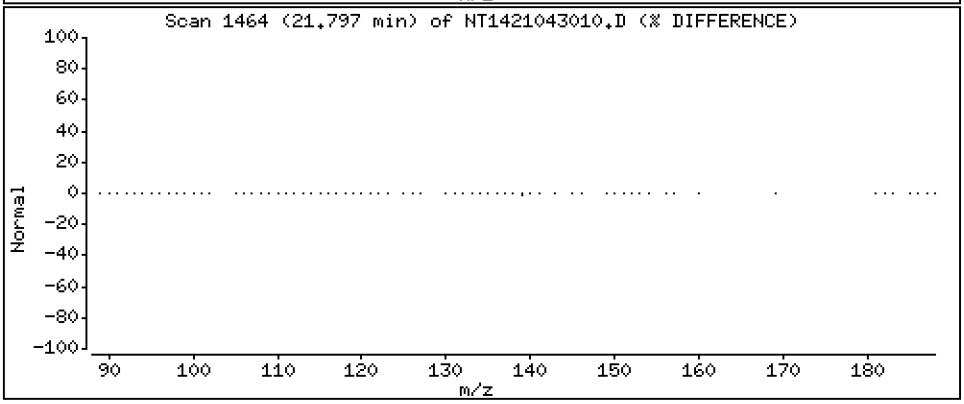












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

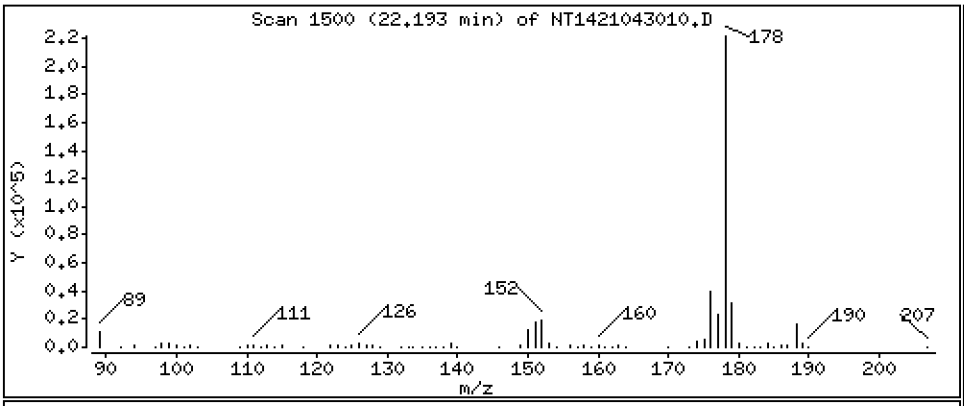
Operator: VTS

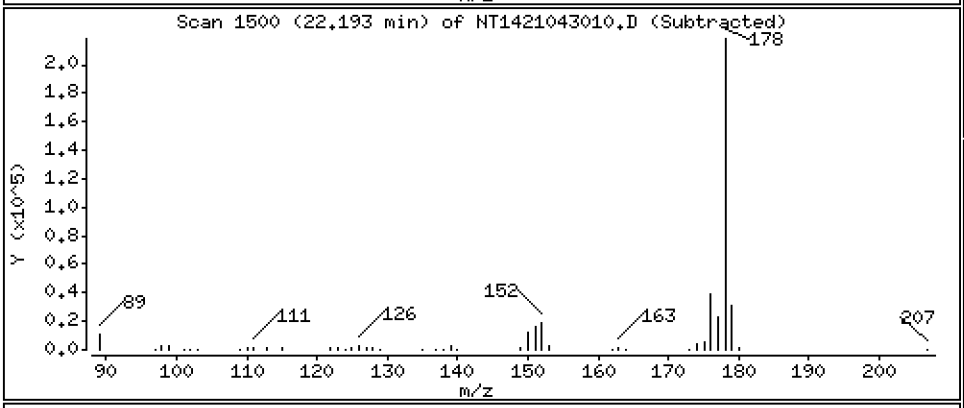
Column phase: Rxi-17Sil MS

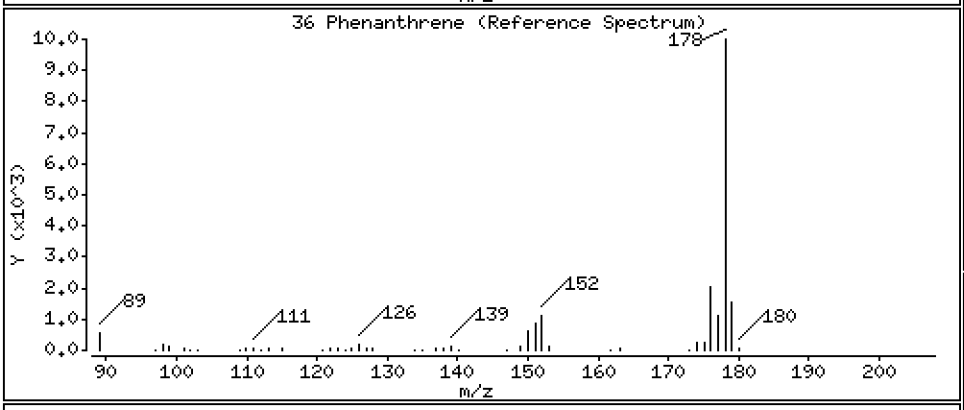
Column diameter: 0.25

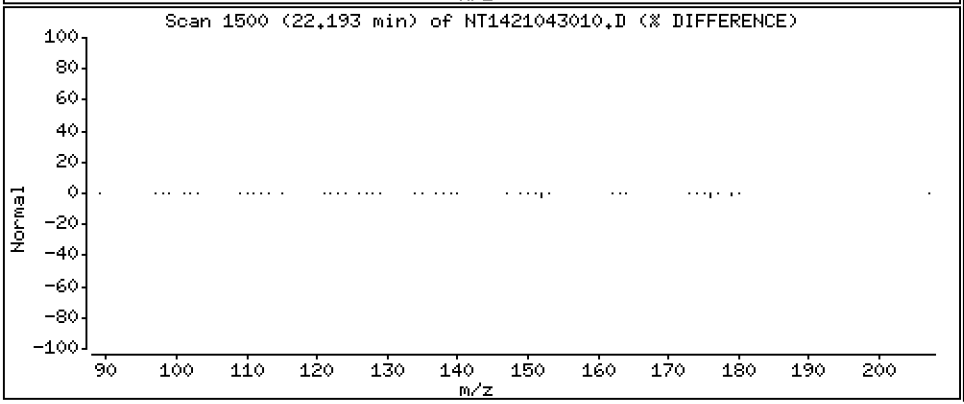
36 Phenanthrene

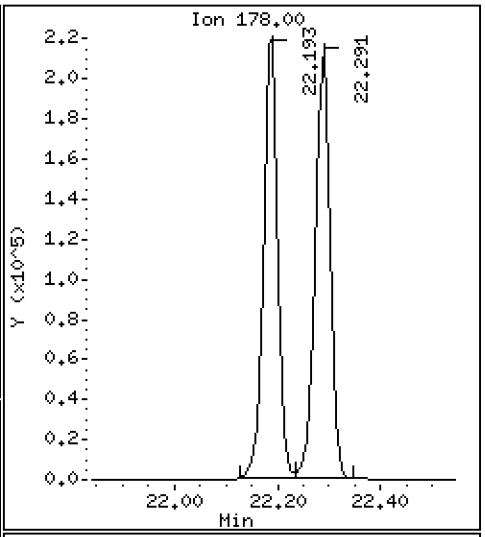
Concentration: 2.468 ug/mL

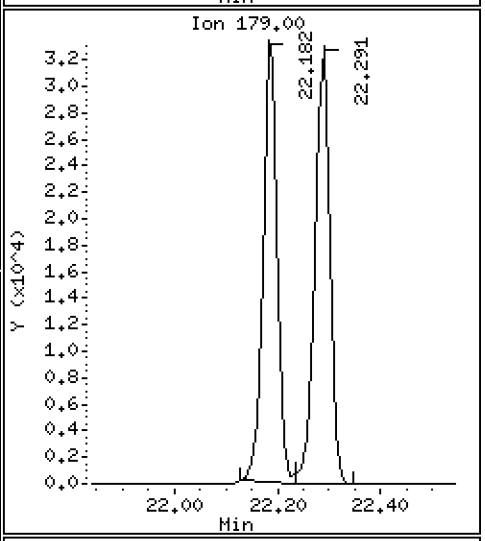


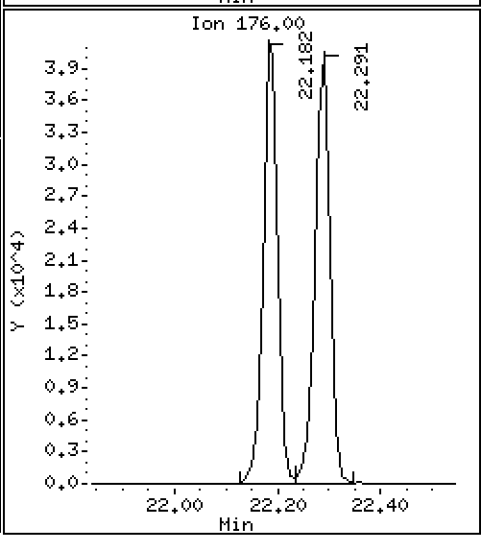












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

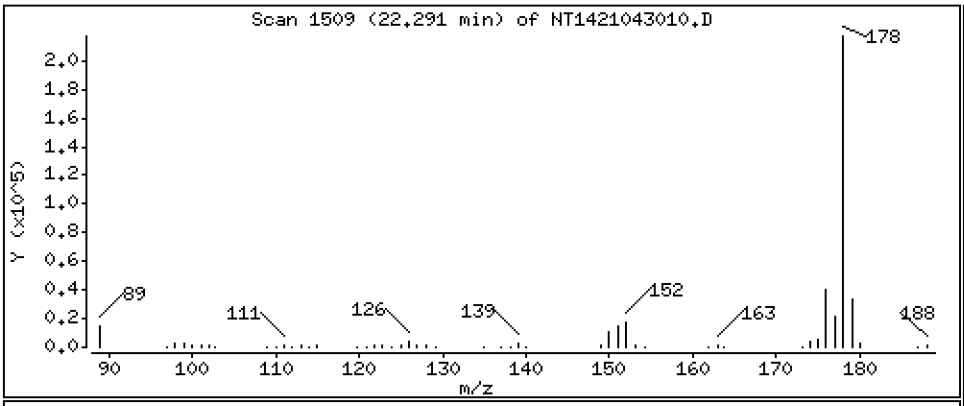
Operator: VTS

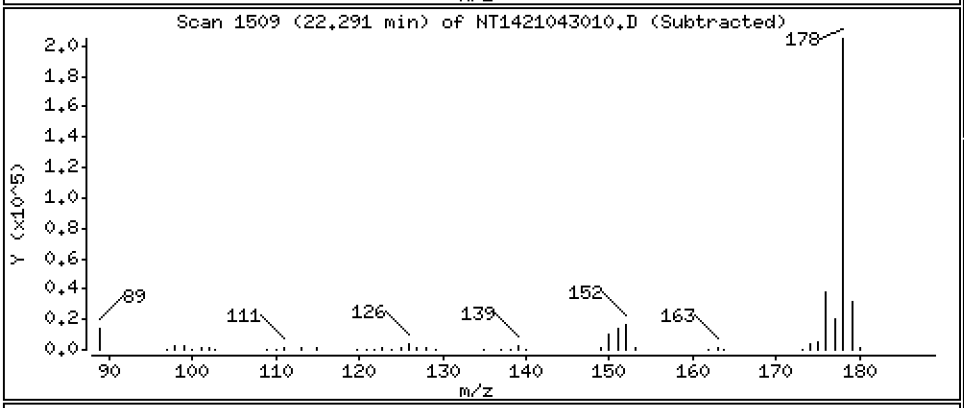
Column phase: Rxi-17Sil MS

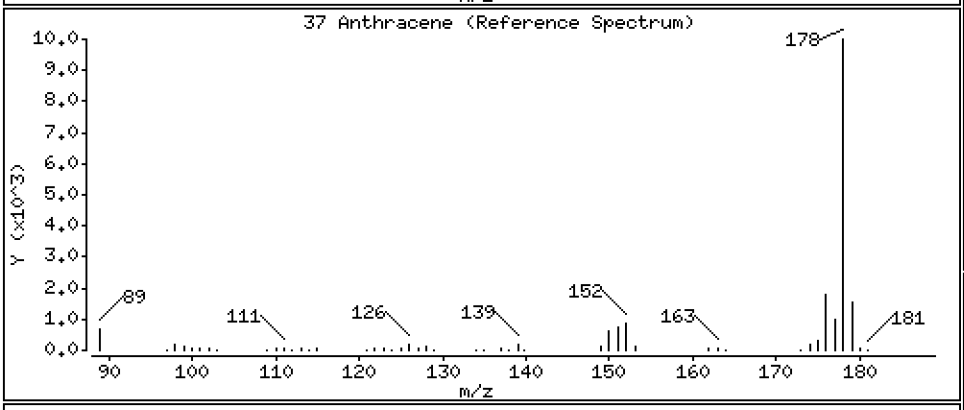
Column diameter: 0.25

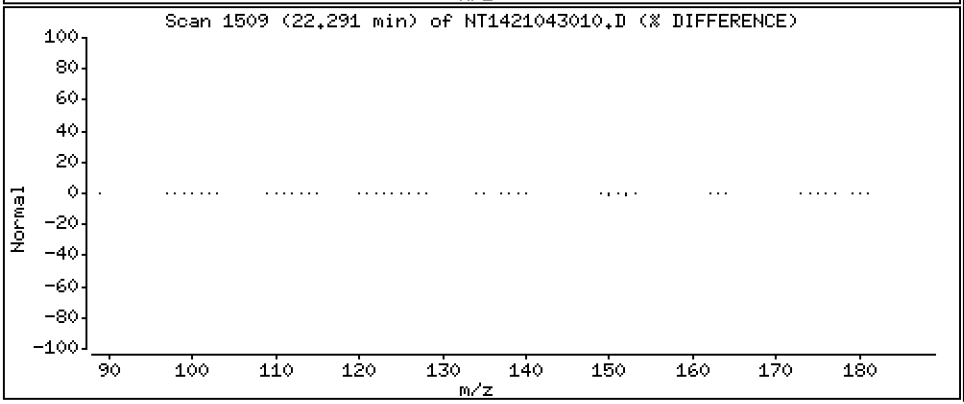
37 Anthracene

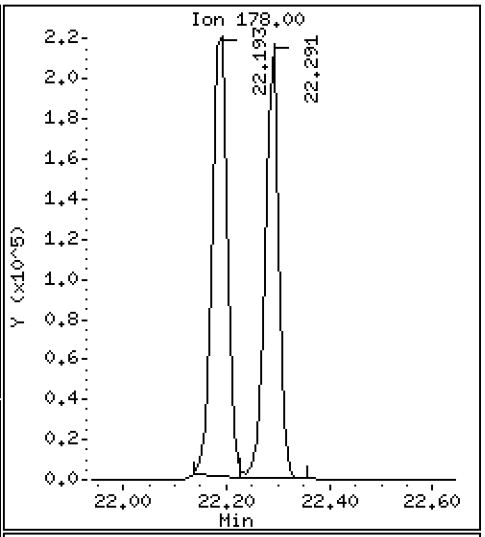
Concentration: 2.492 ug/mL

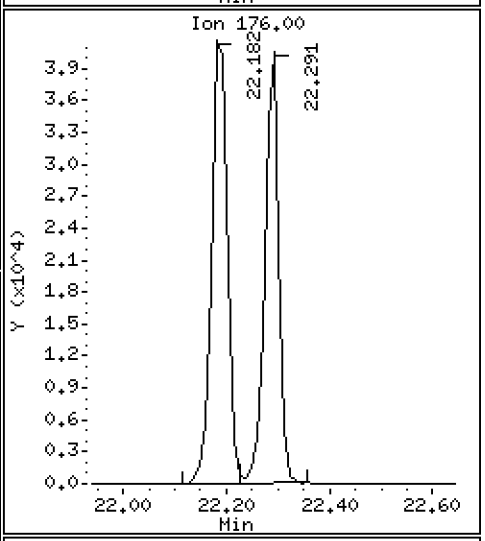


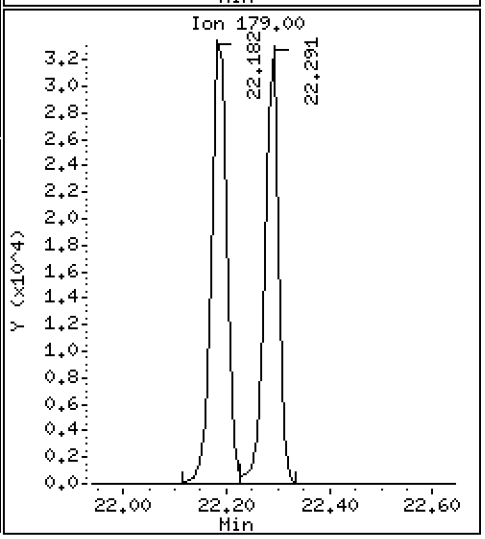












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

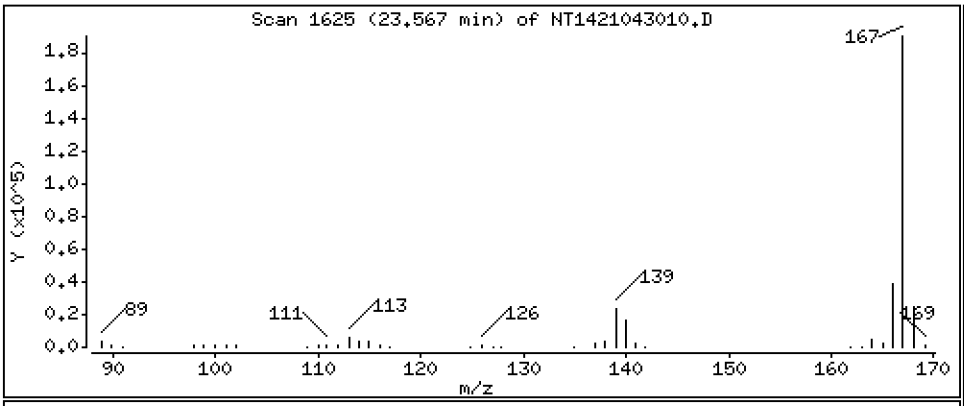
Operator: VTS

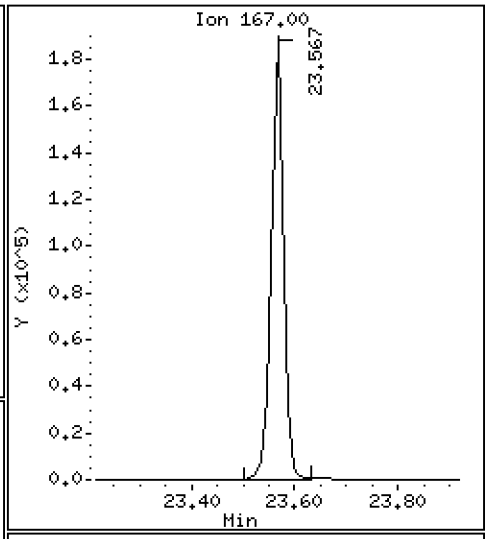
Column phase: Rxi-17Sil MS

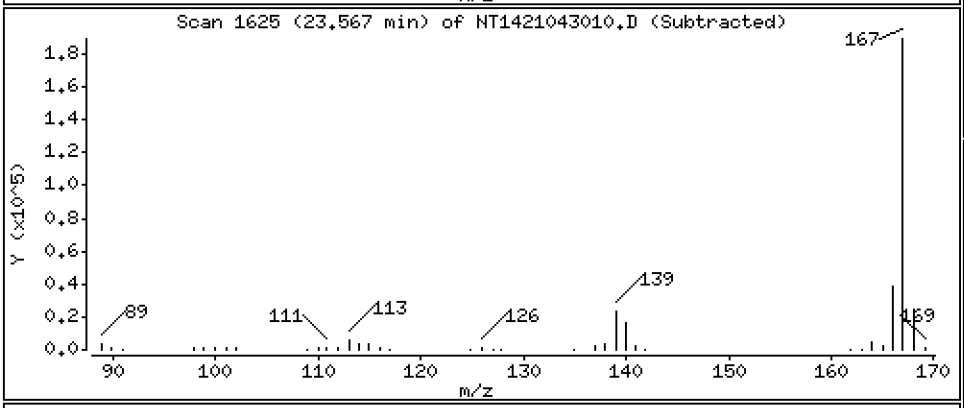
Column diameter: 0.25

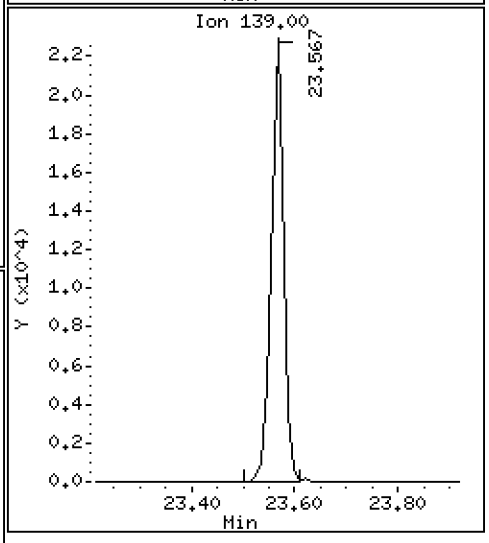
42 Carbazole

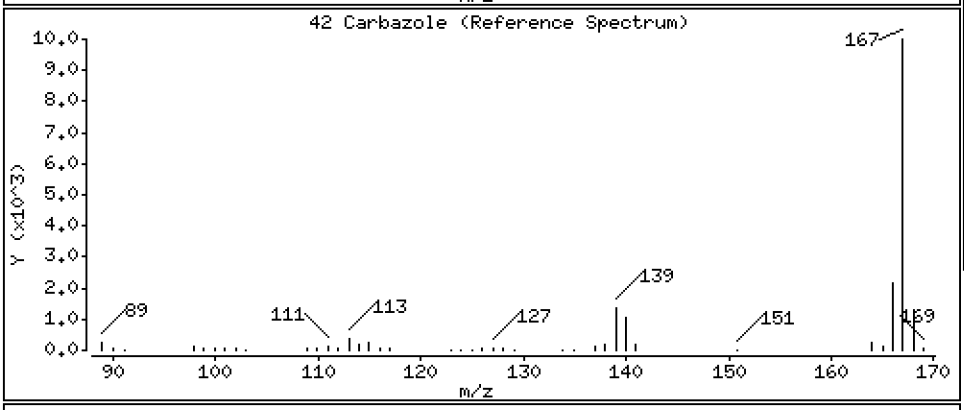
Concentration: 2.343 ug/mL

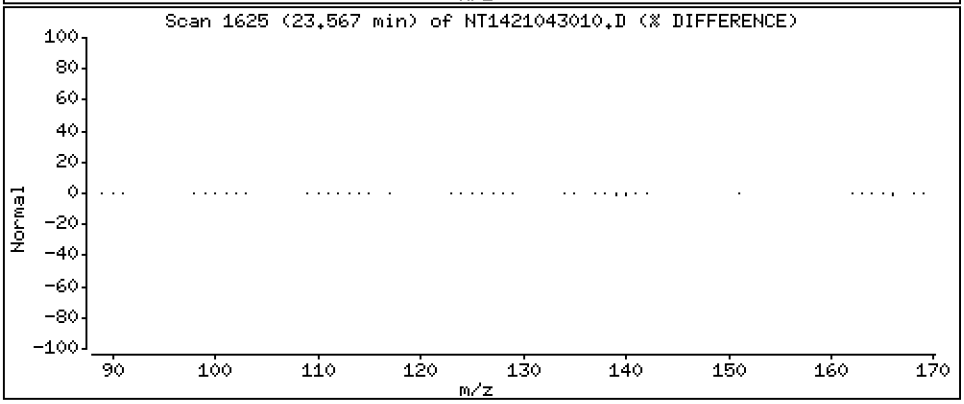












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

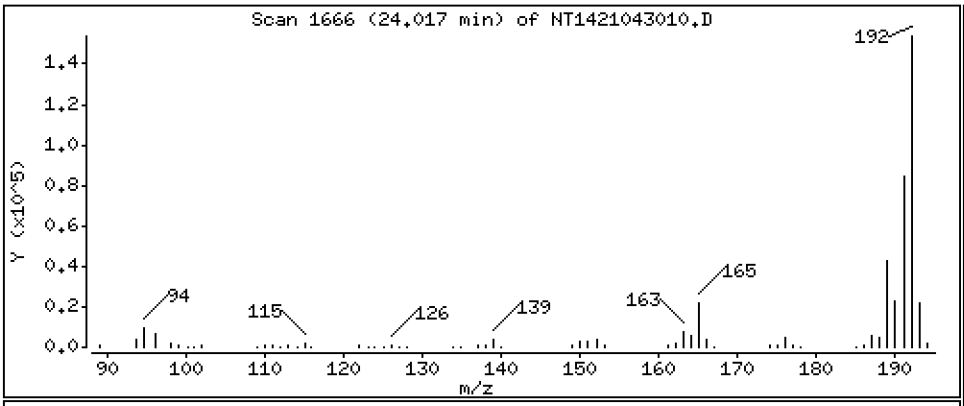
Operator: VTS

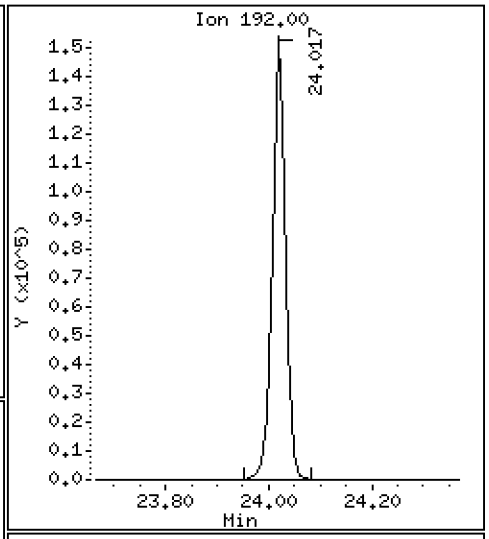
Column phase: Rxi-17Sil MS

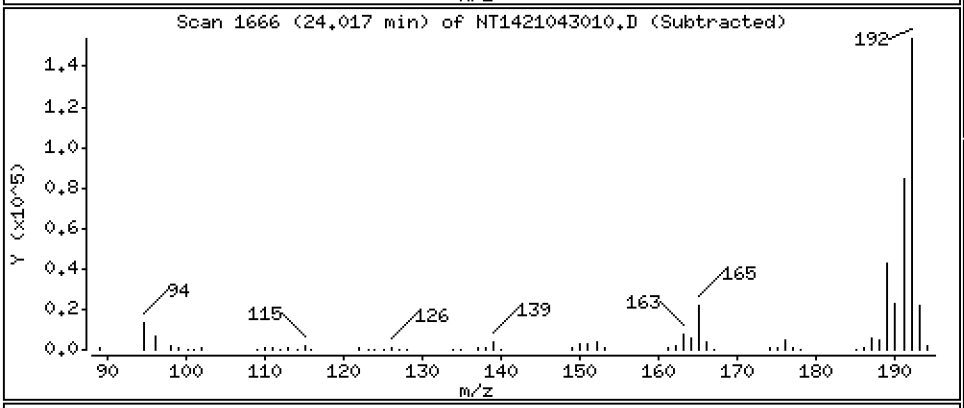
Column diameter: 0.25

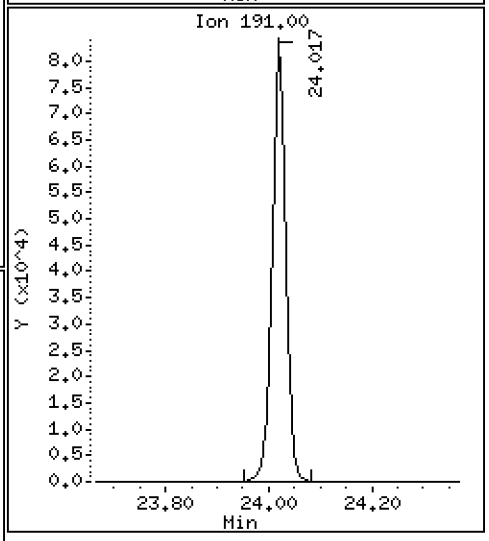
43 1-Methylphenanthrene

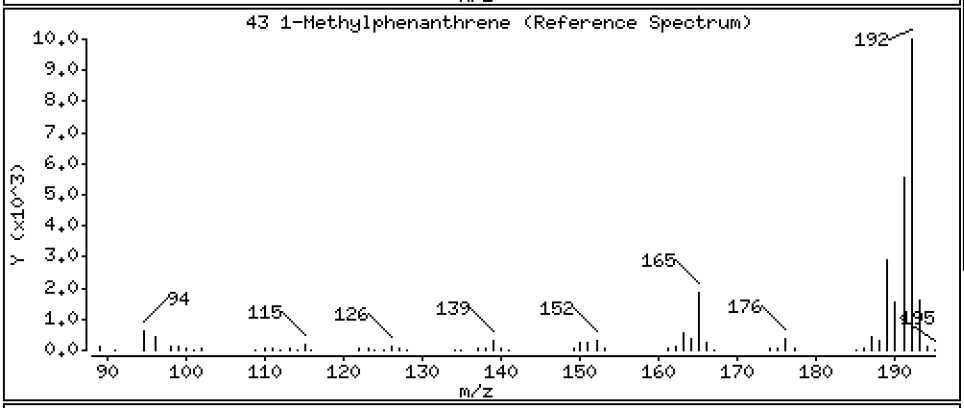
Concentration: 2.594 ug/mL

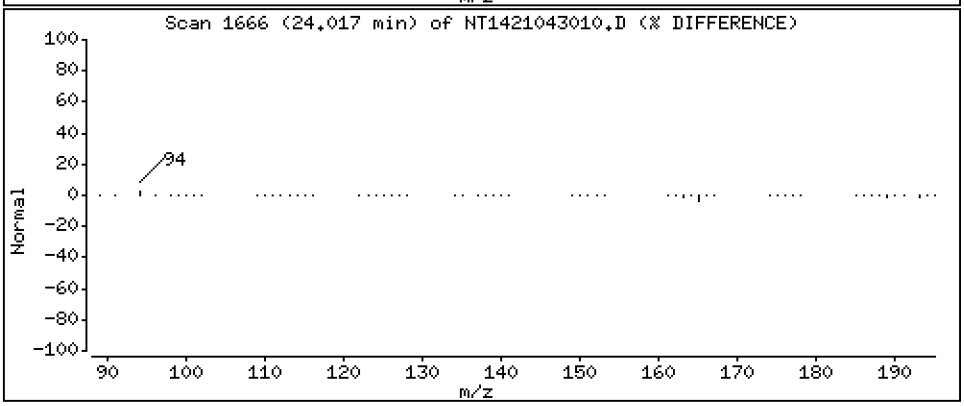












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

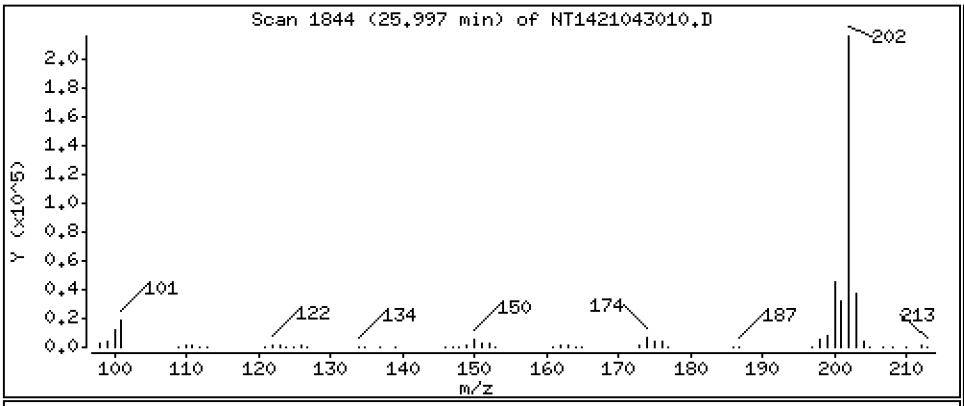
Operator: VTS

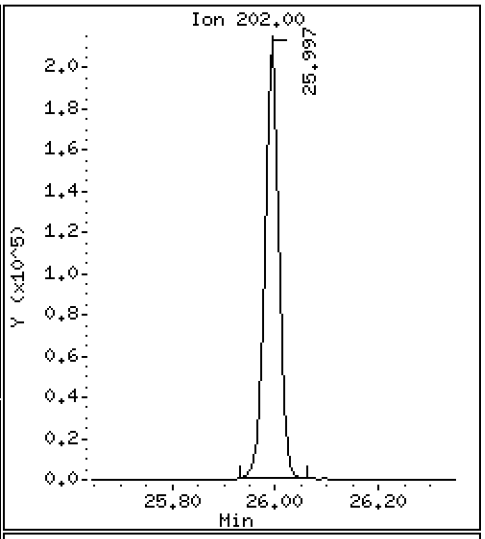
Column phase: Rxi-17Sil MS

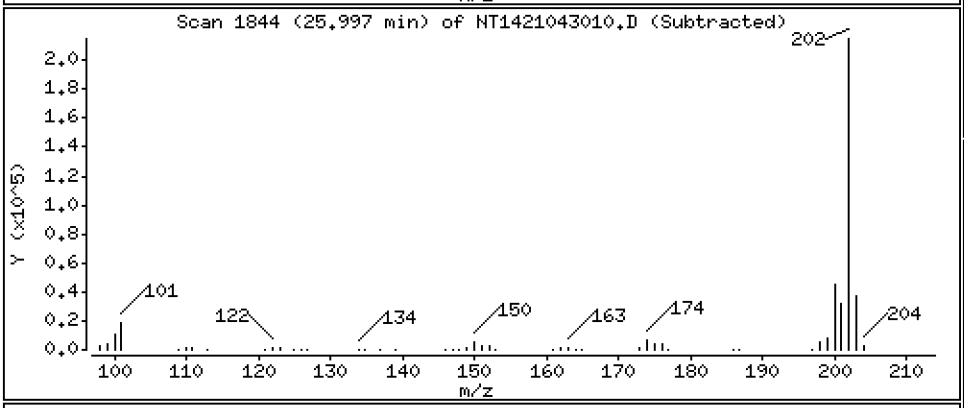
Column diameter: 0.25

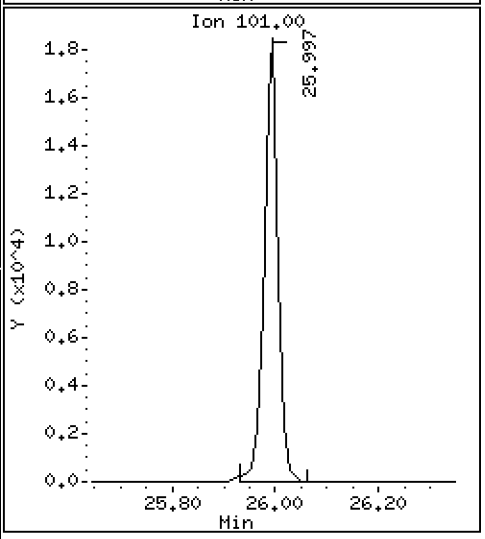
44 Fluoranthene

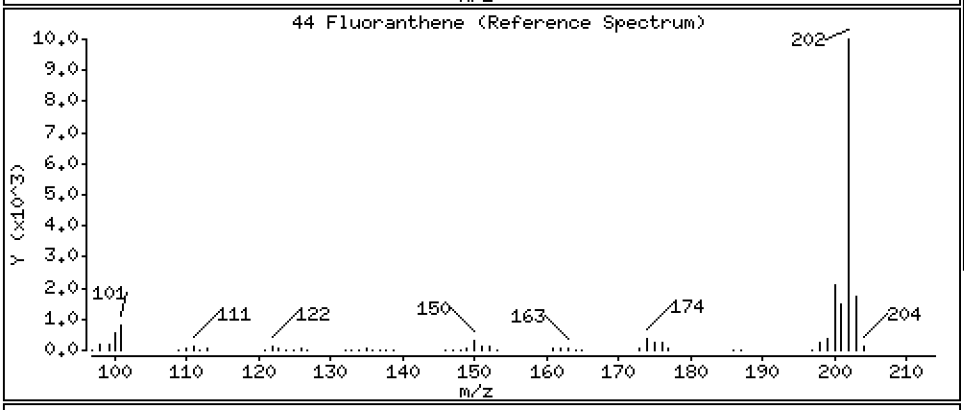
Concentration: 2.634 ug/mL

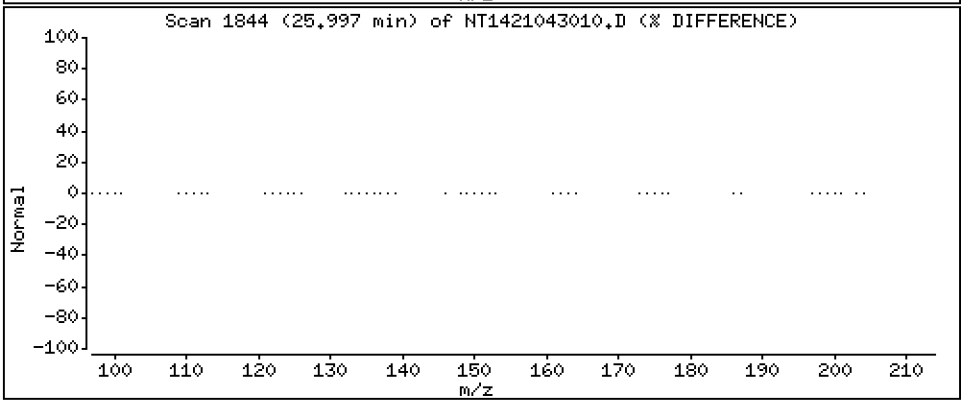












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

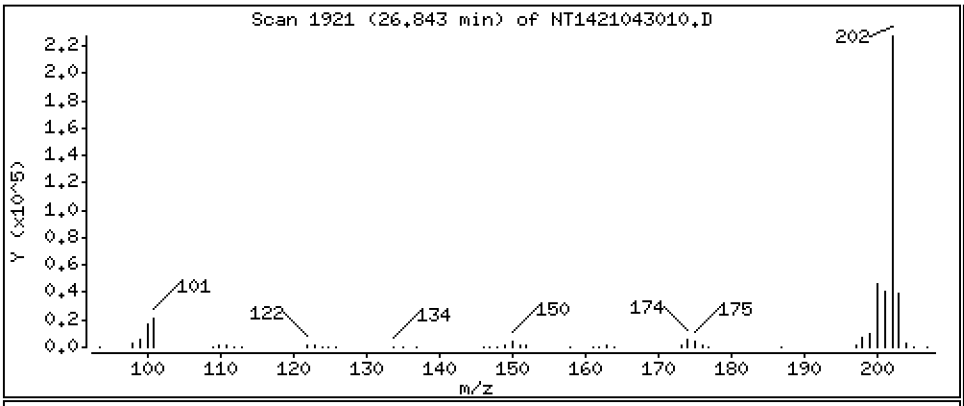
Operator: VTS

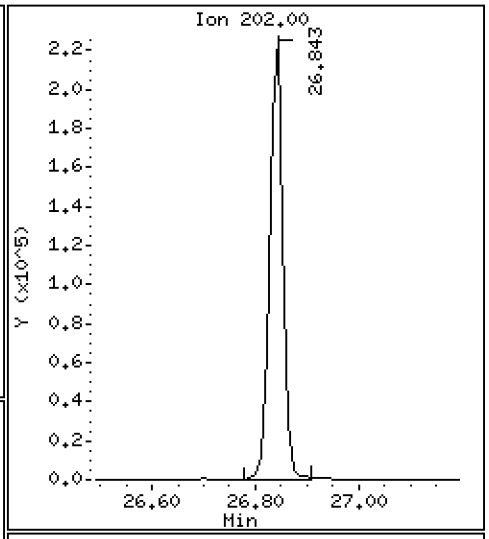
Column phase: Rxi-17Sil MS

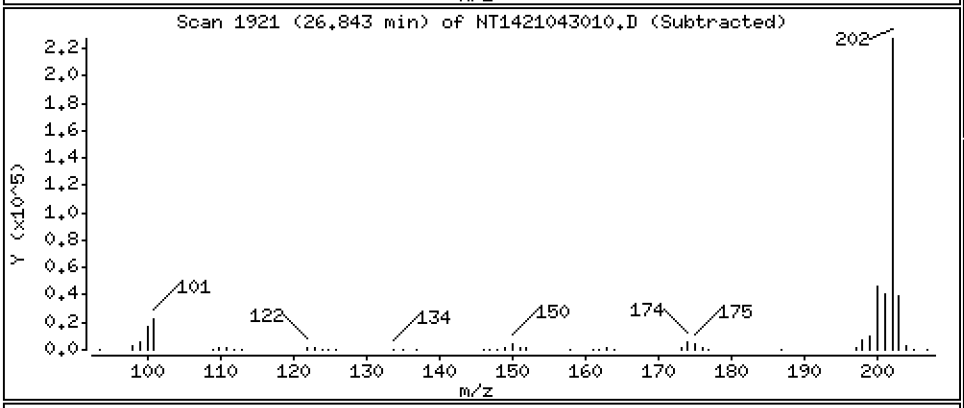
Column diameter: 0.25

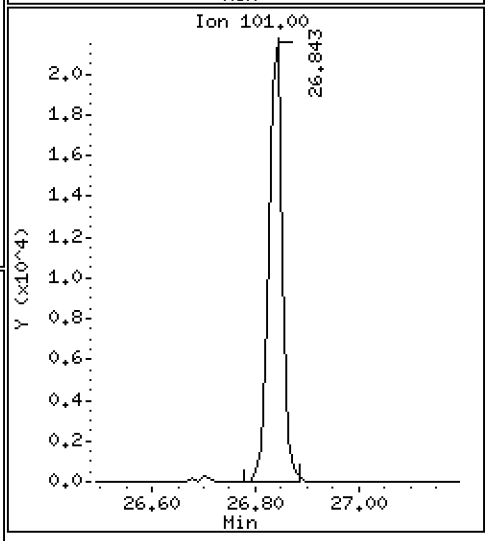
46 Pyrene

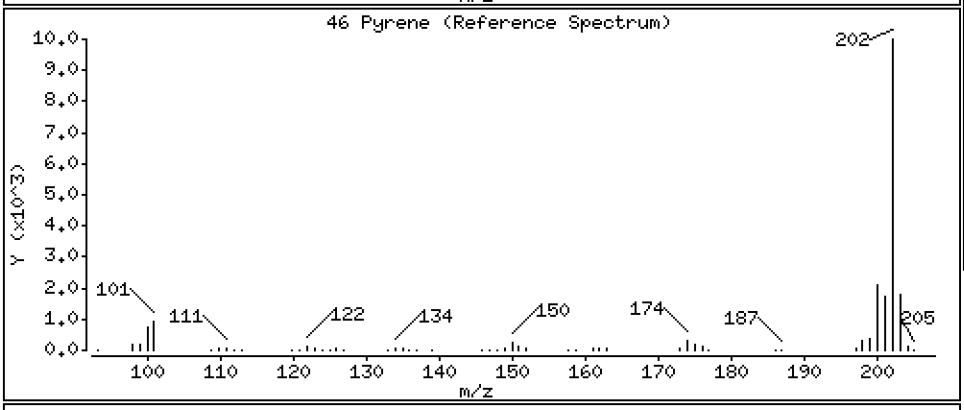
Concentration: 2.527 ug/mL

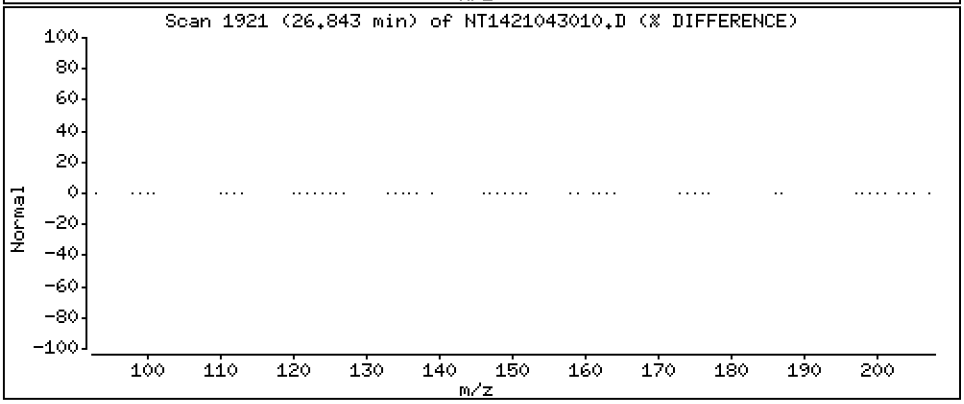












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

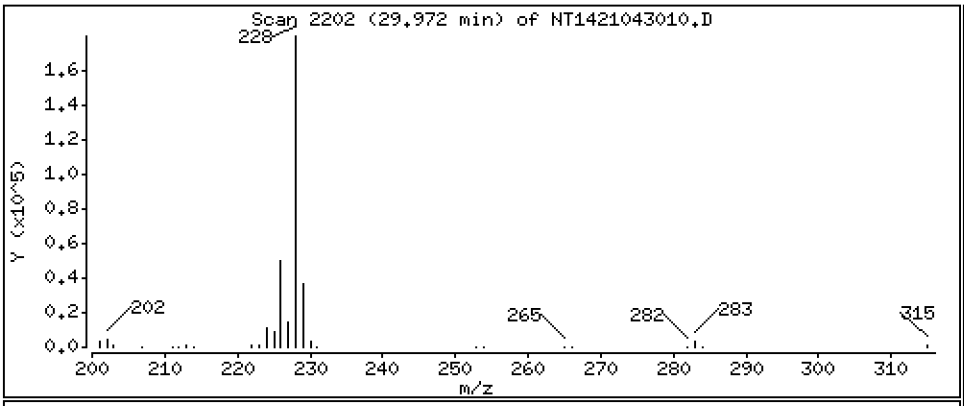
Operator: VTS

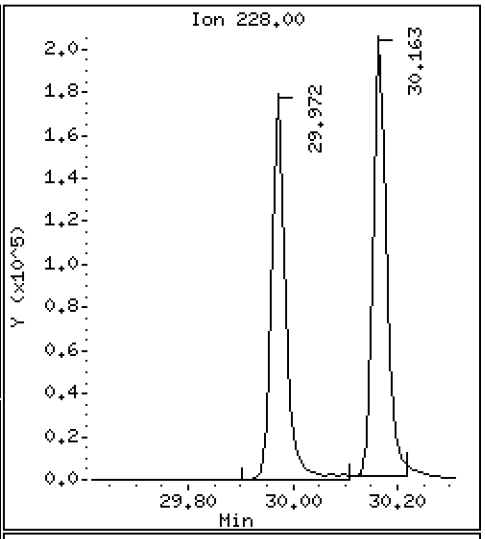
Column phase: Rxi-17Sil MS

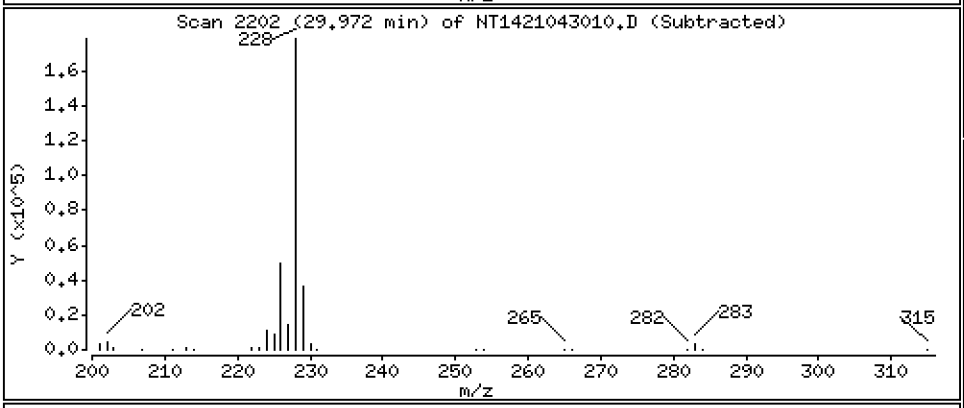
Column diameter: 0.25

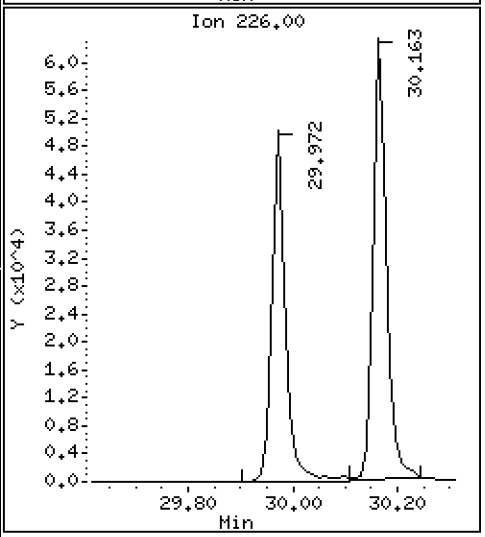
55 Benzo(a)anthracene

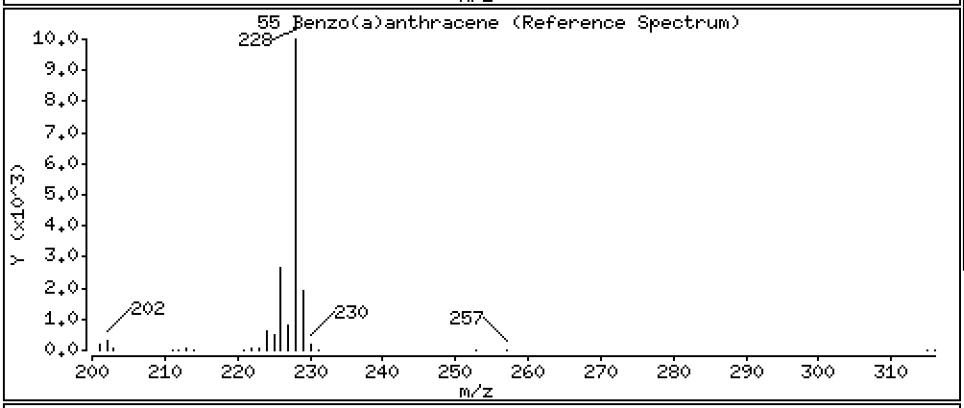
Concentration: 2.278 ug/mL

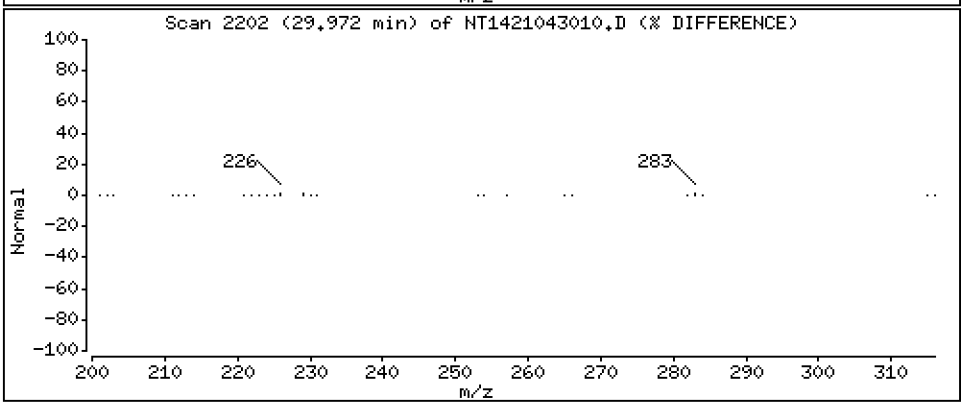












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

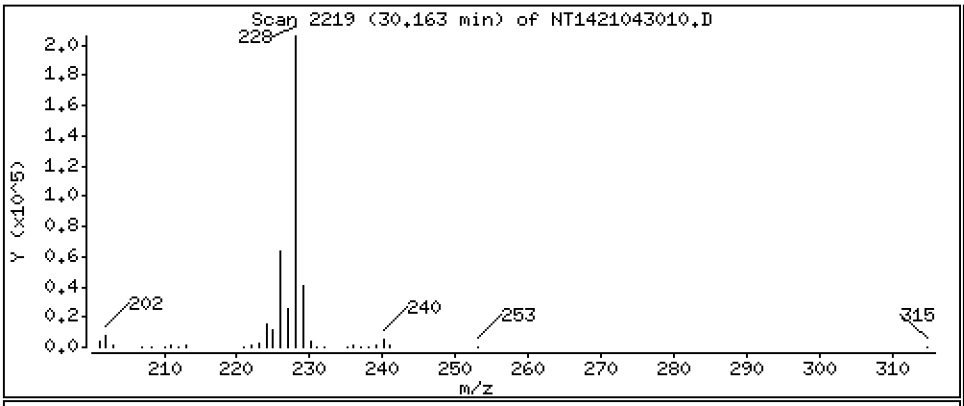
Operator: VTS

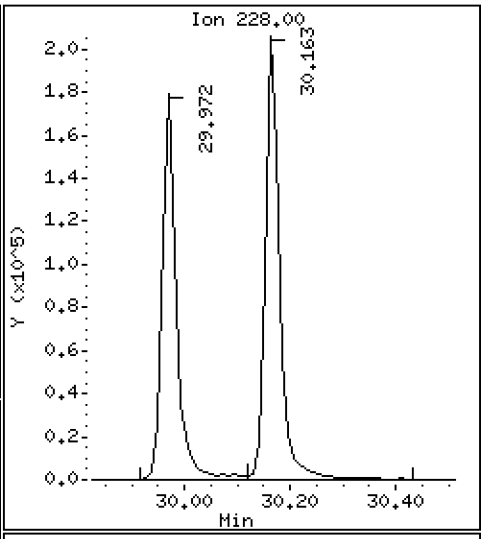
Column phase: Rxi-17Sil MS

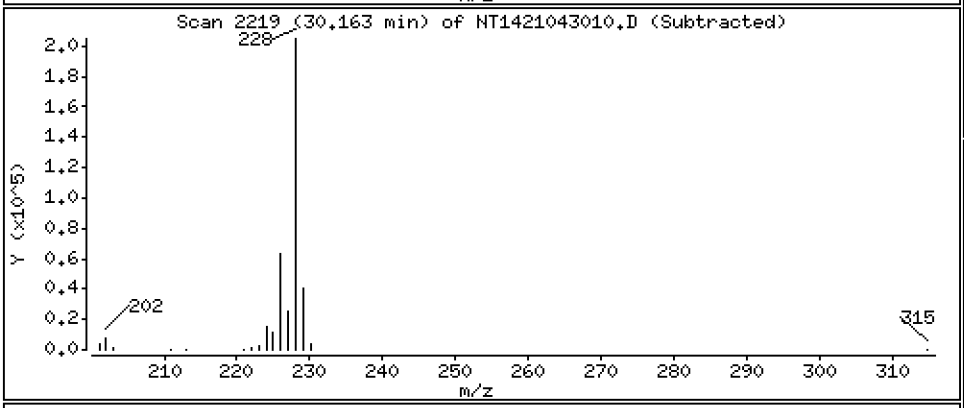
Column diameter: 0.25

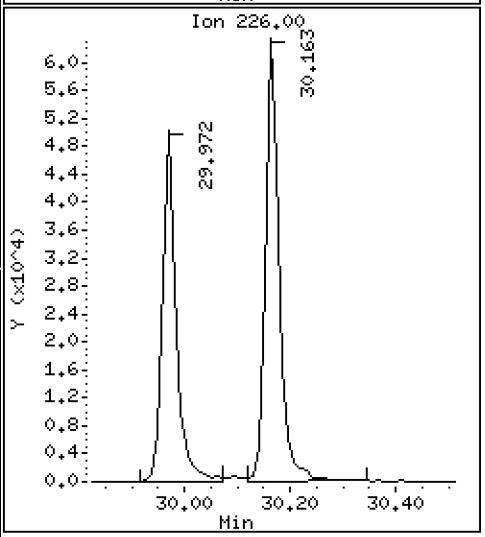
57 Chrysene

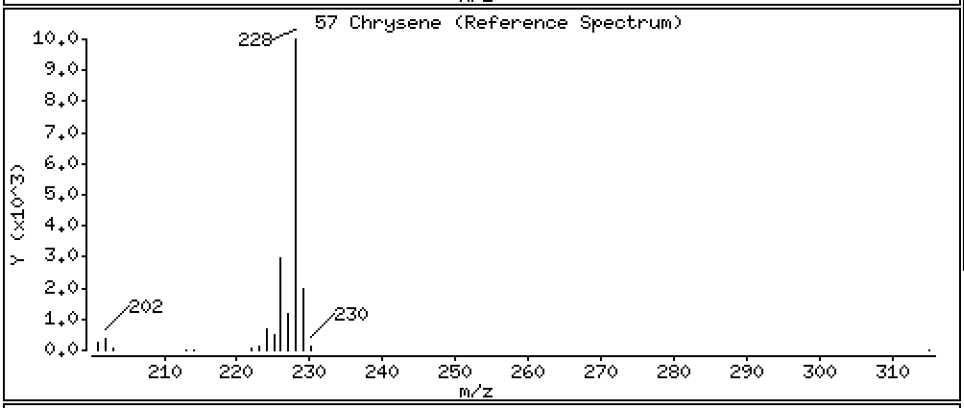
Concentration: 2.574 ug/mL

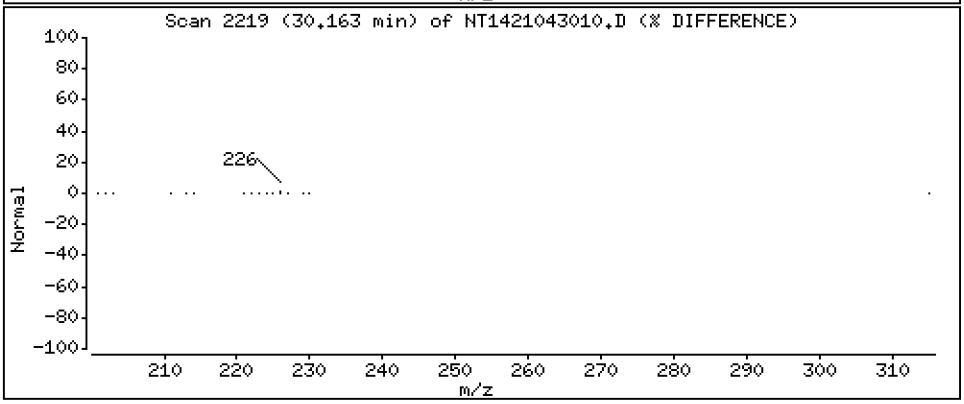












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

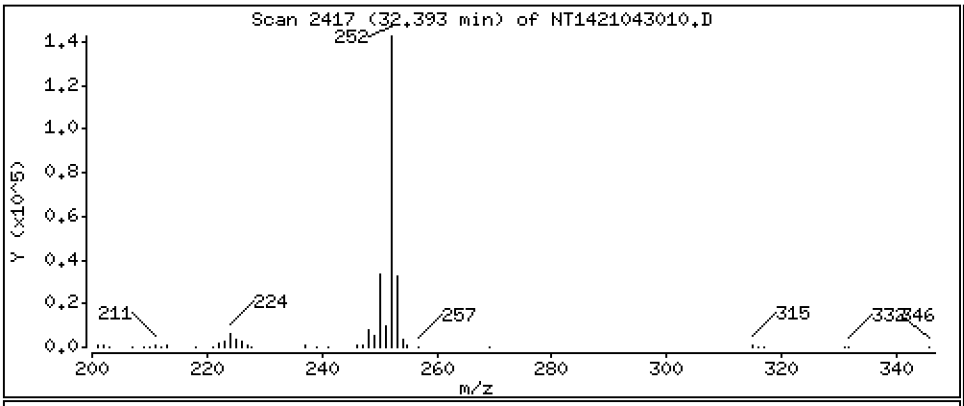
Operator: VTS

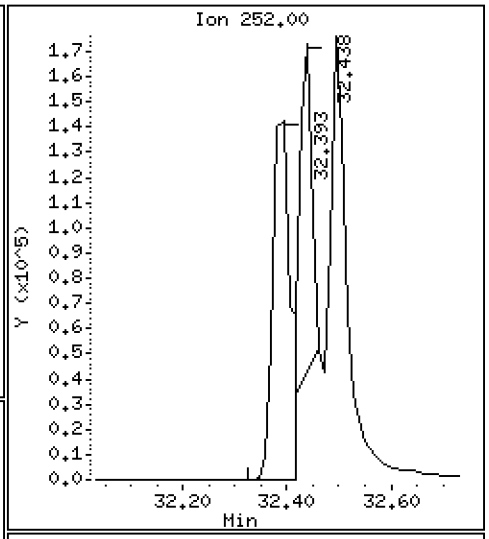
Column phase: Rxi-17Sil MS

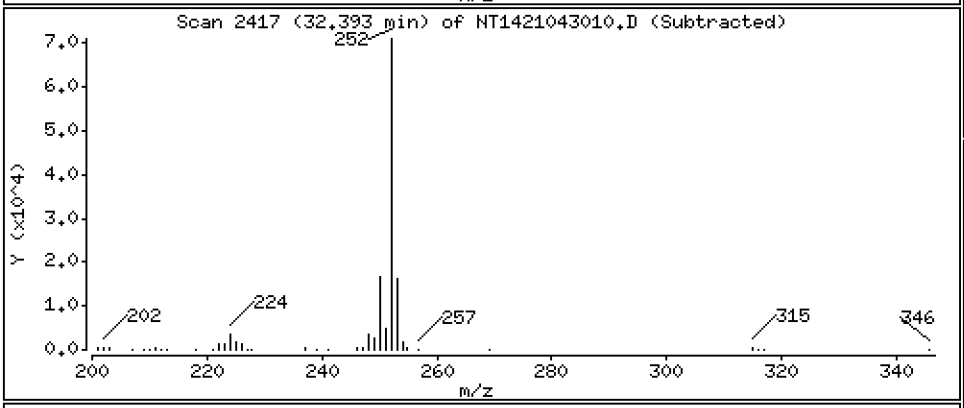
Column diameter: 0.25

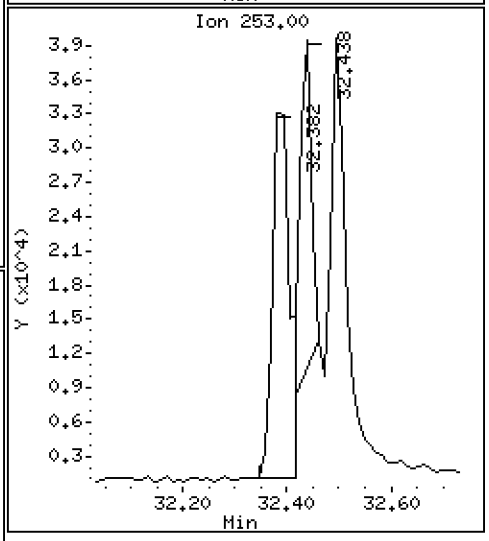
62 Benzo(b)fluoranthene

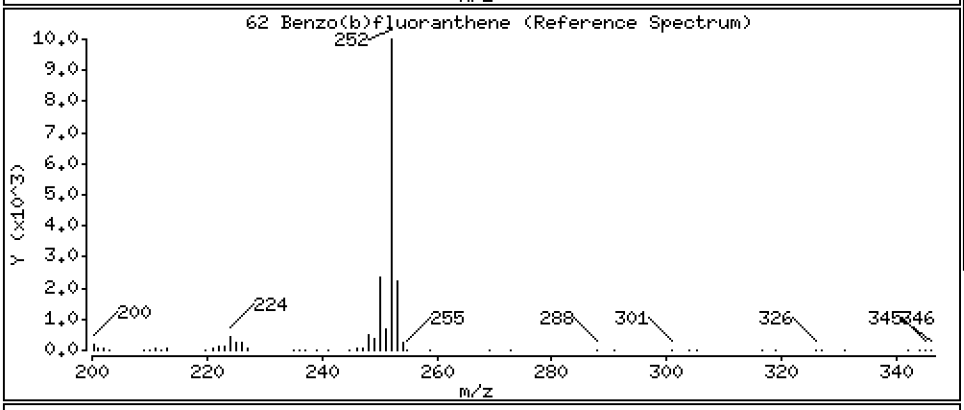
Concentration: 2.326 ug/mL

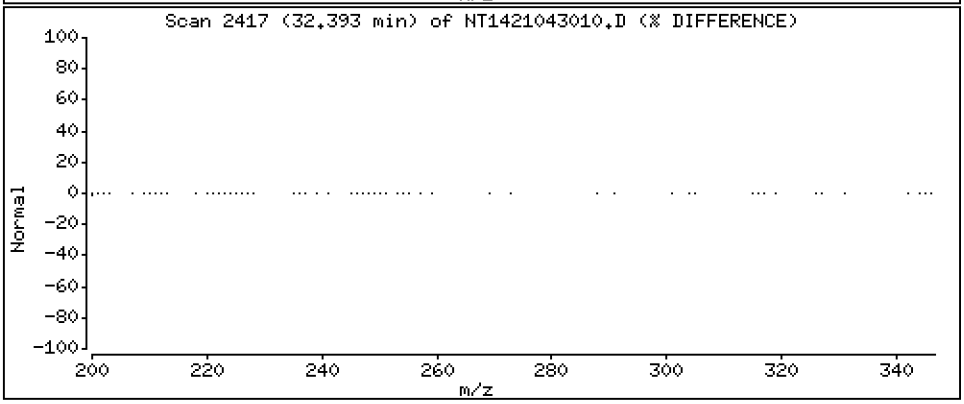












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

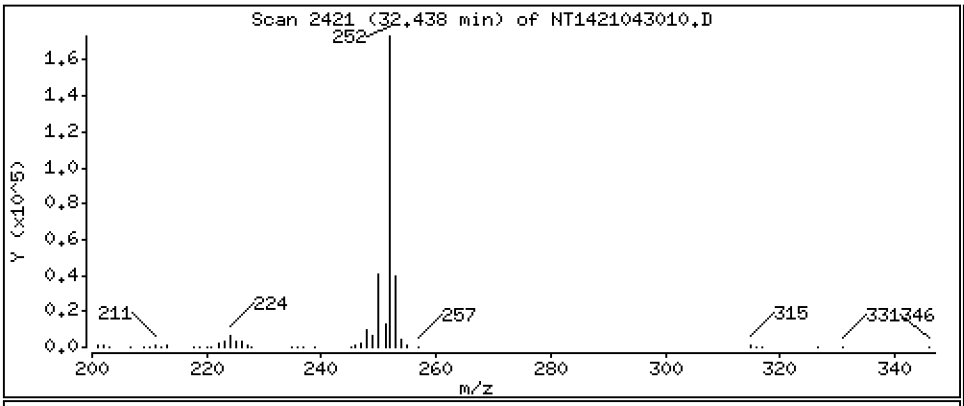
Operator: VTS

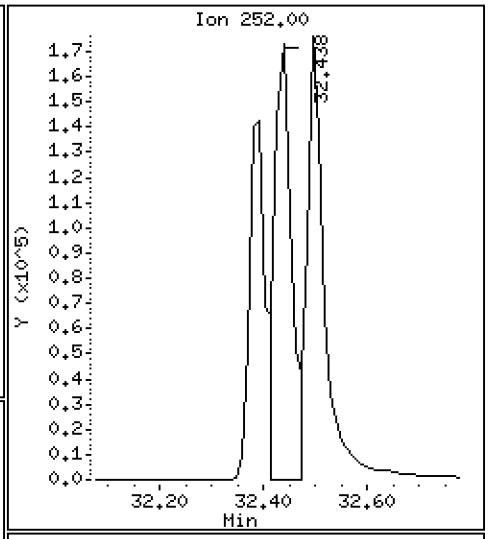
Column phase: Rxi-17Sil MS

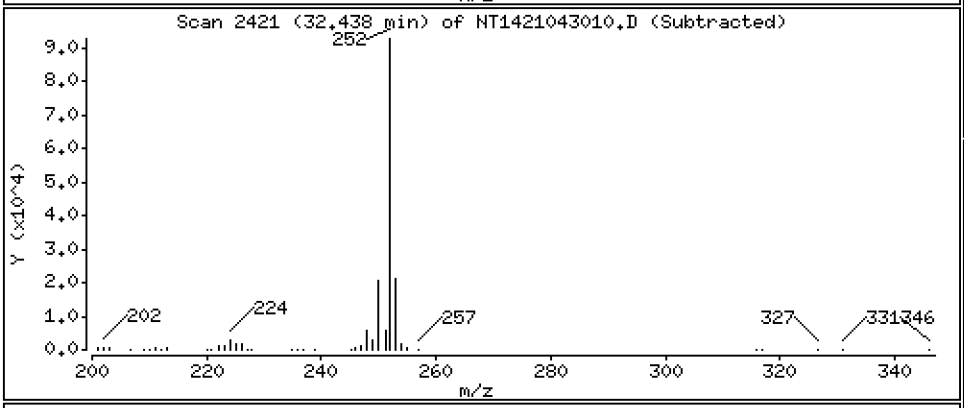
Column diameter: 0.25

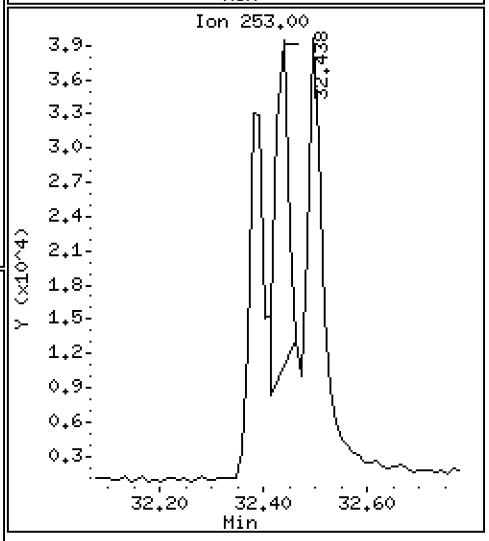
63 Benzo(k)fluoranthene

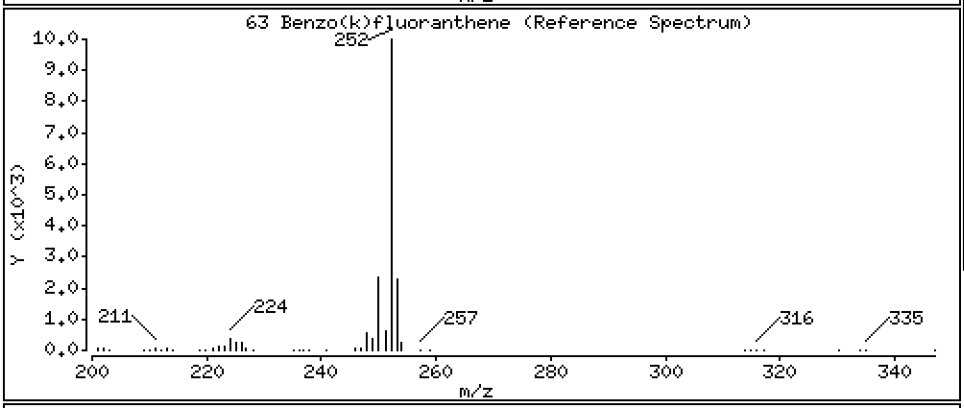
Concentration: 2.304 ug/mL

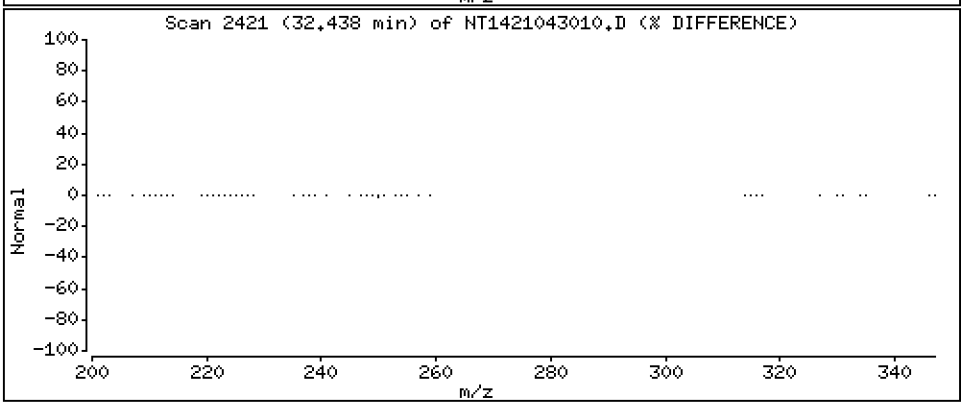












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

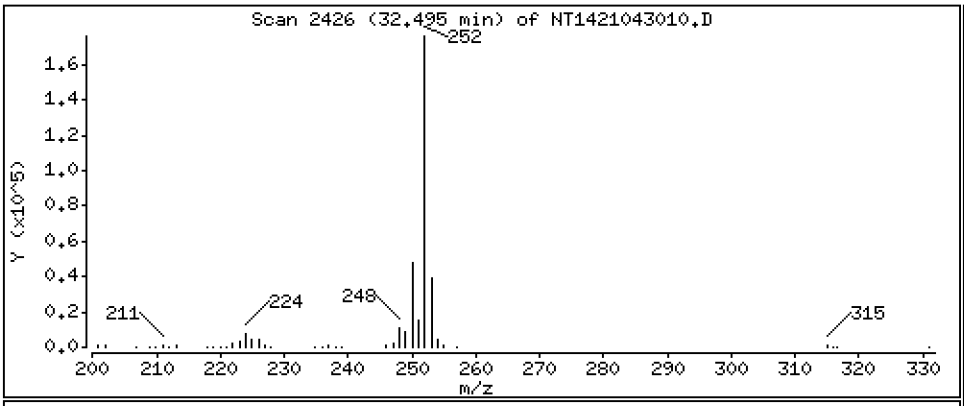
Operator: VTS

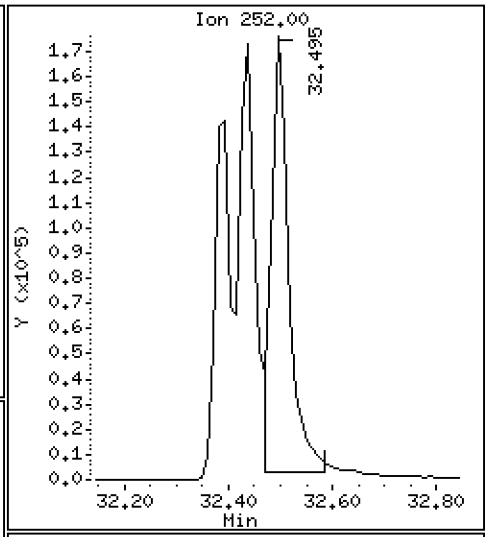
Column phase: Rxi-17Sil MS

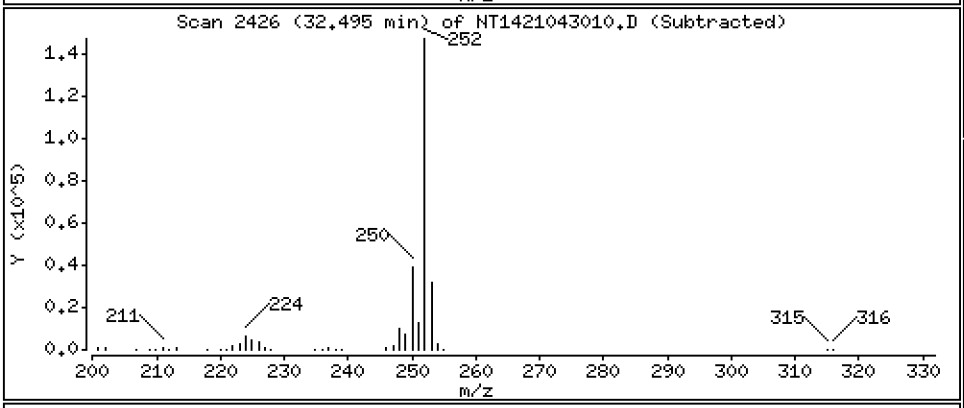
Column diameter: 0.25

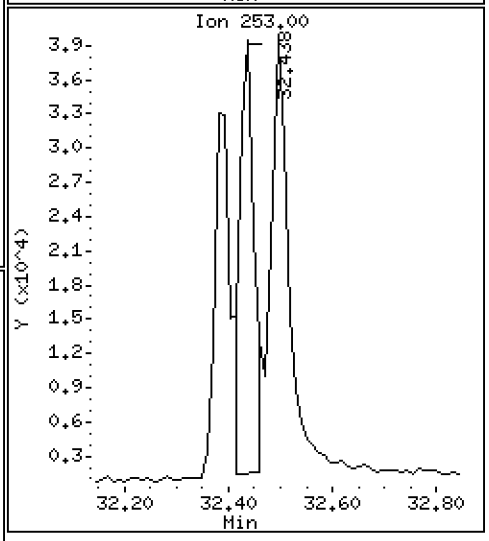
293 Benzo(j)fluoranthene

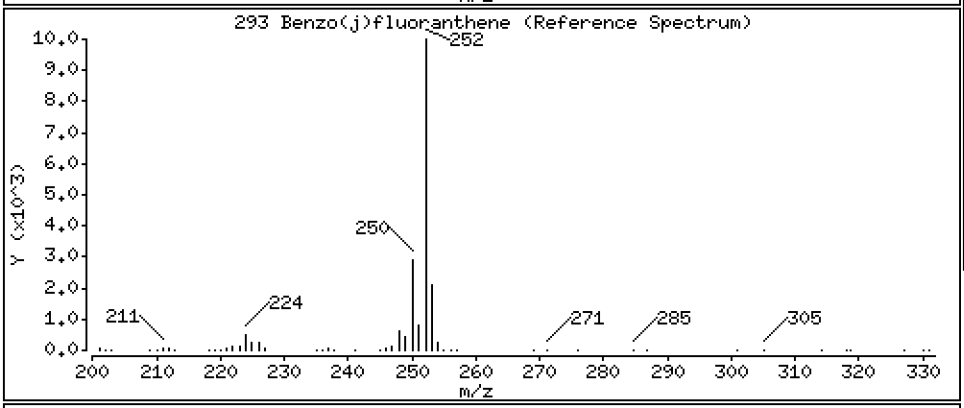
Concentration: 2.516 ug/mL

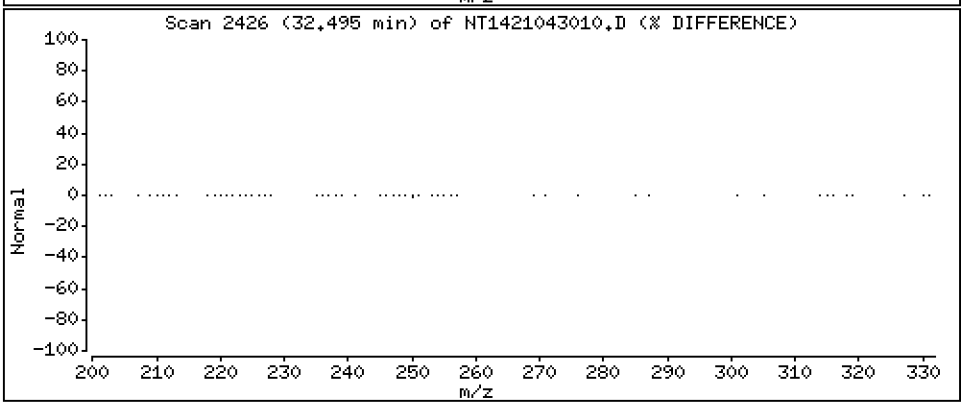












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

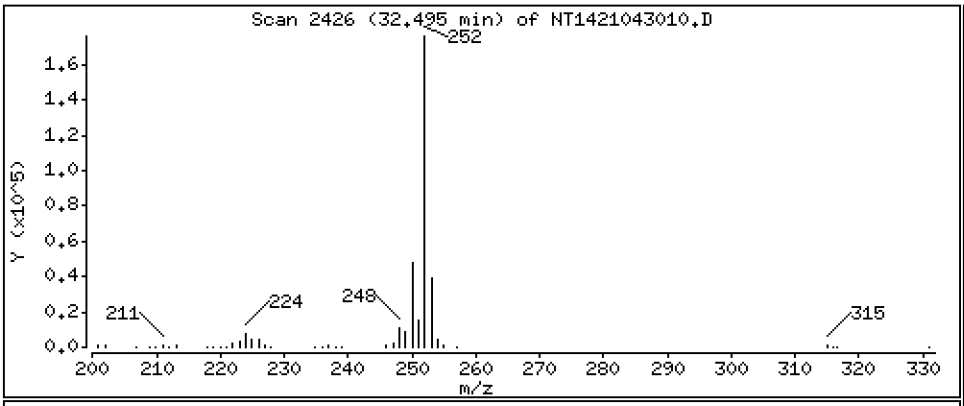
Operator: VTS

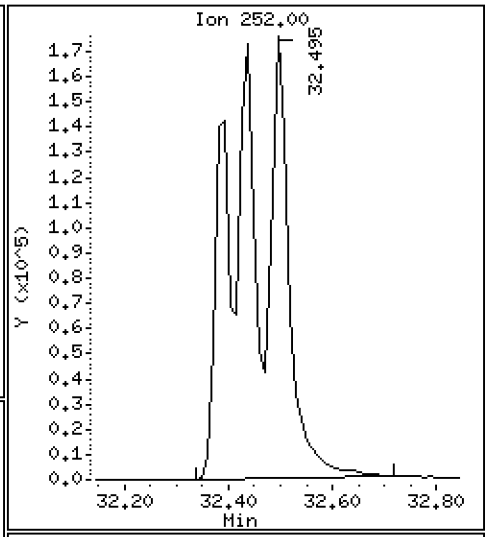
Column phase: Rxi-17Sil MS

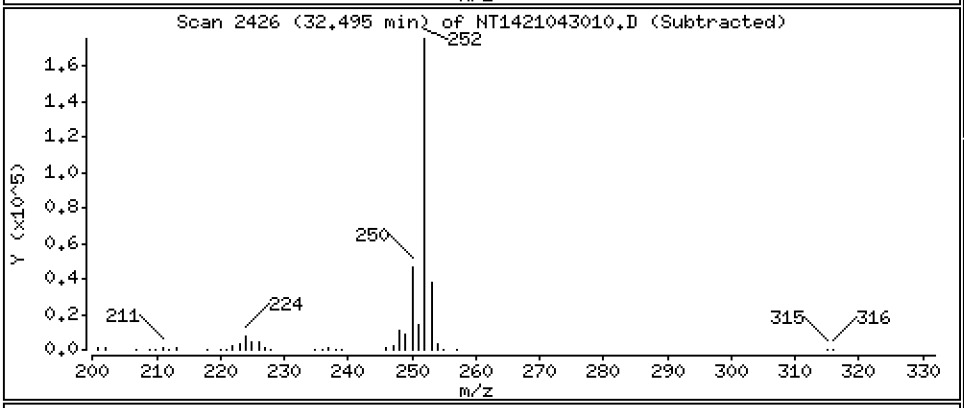
Column diameter: 0.25

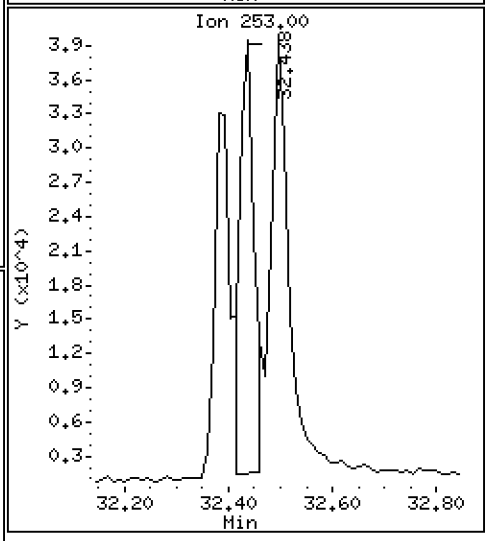
246 Total Benzofluoranthenes

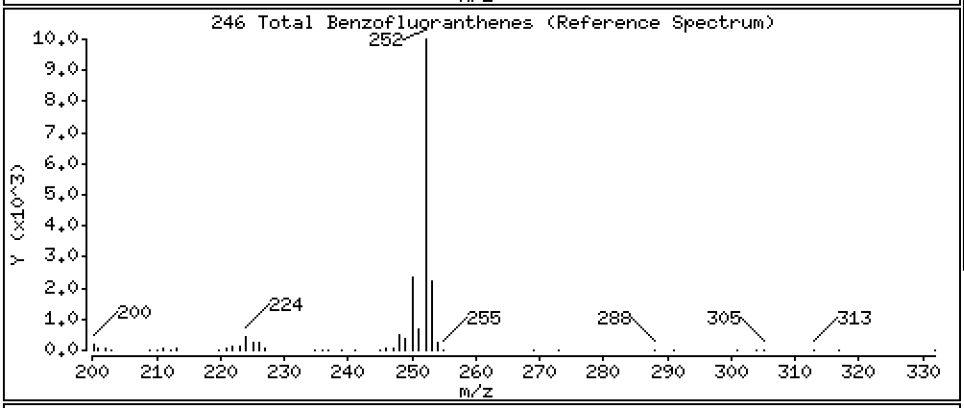
Concentration: 6.960 ug/mL

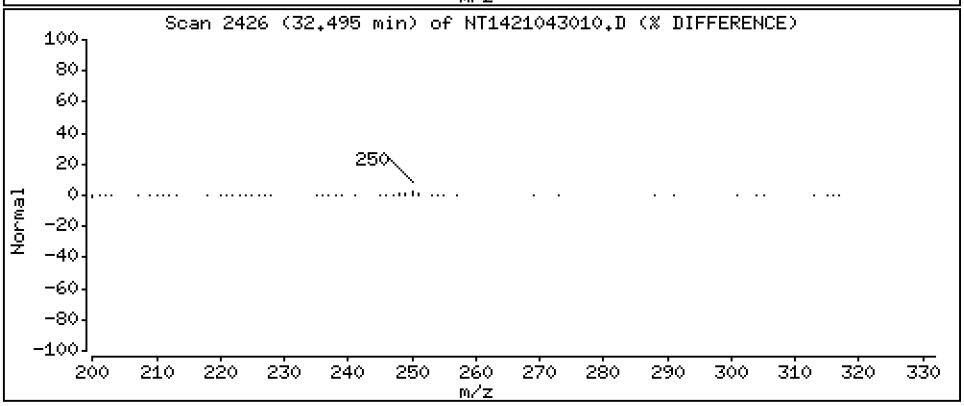












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

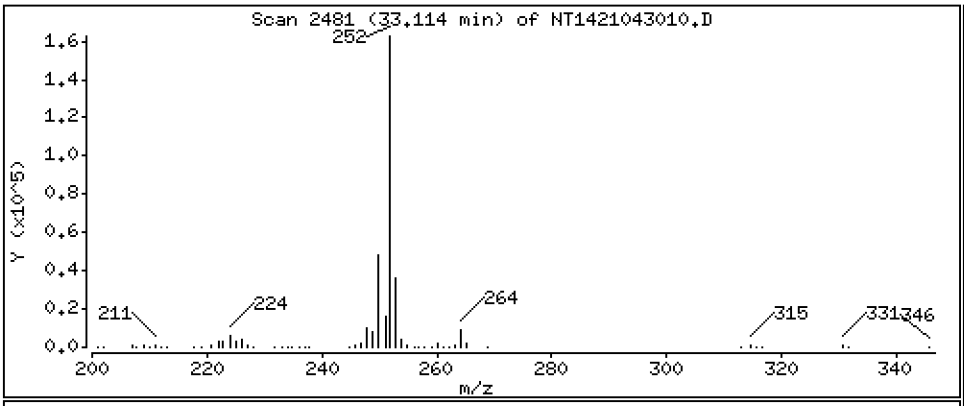
Operator: VTS

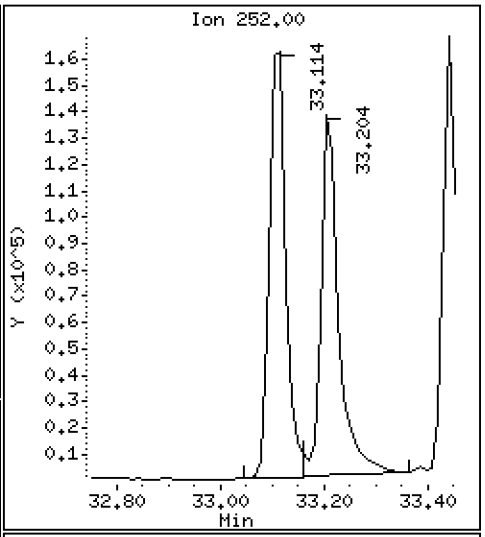
Column phase: Rxi-17Sil MS

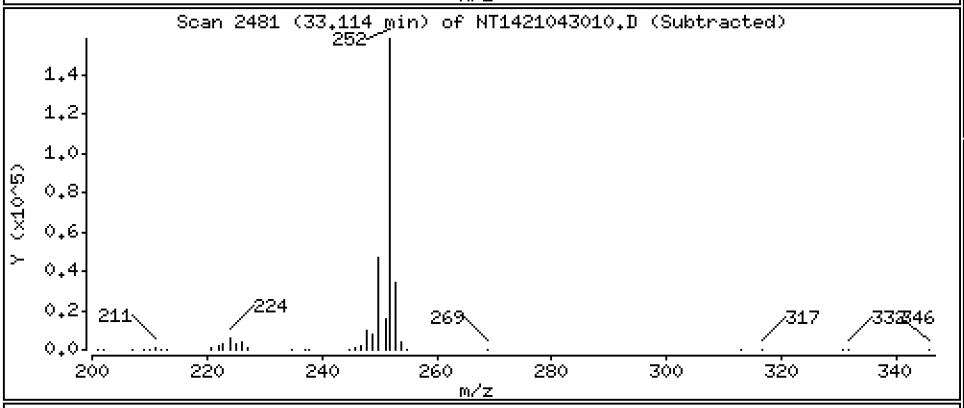
Column diameter: 0.25

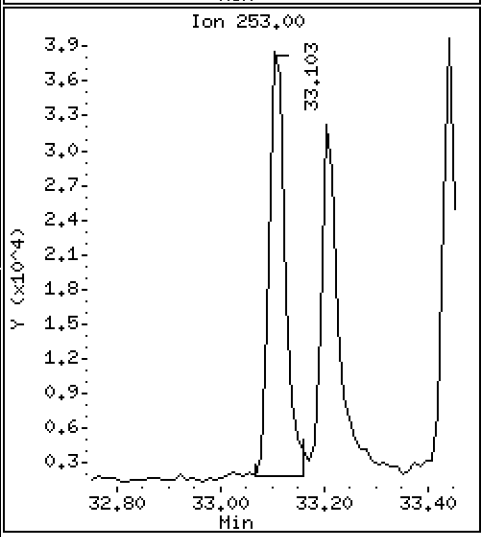
64 Benzo(e)pyrene

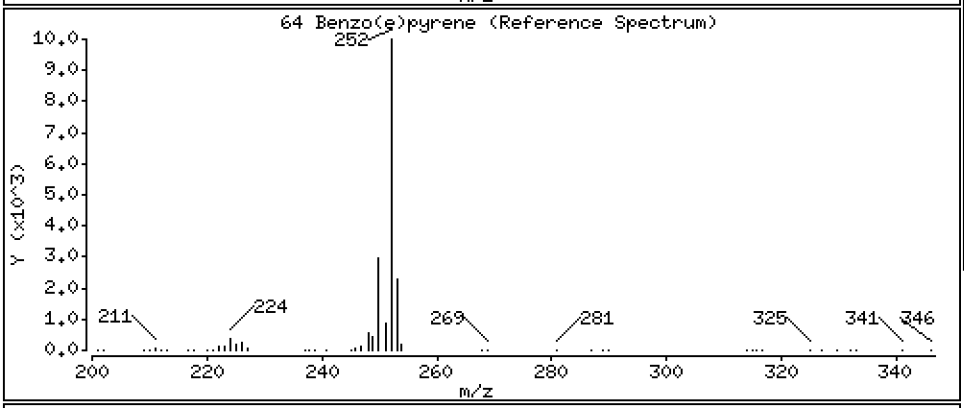
Concentration: 2.454 ug/mL

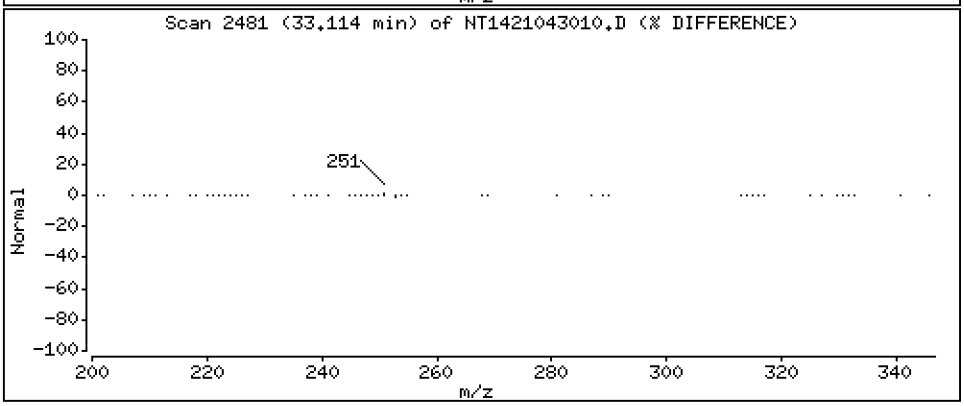












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

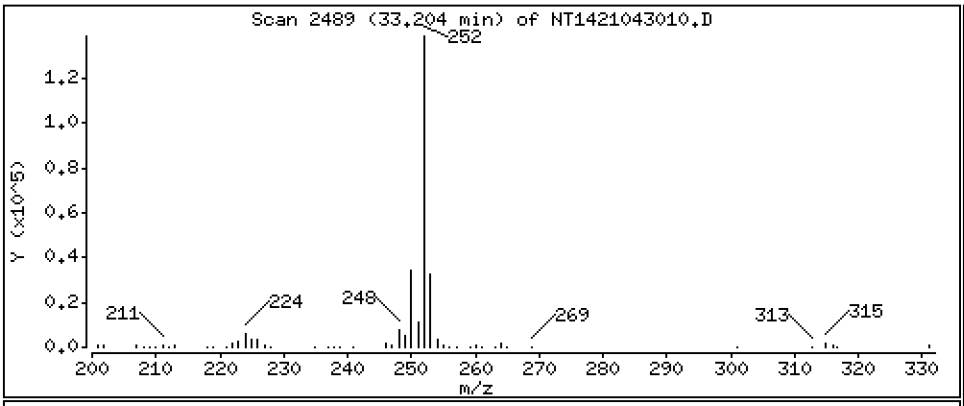
Operator: VTS

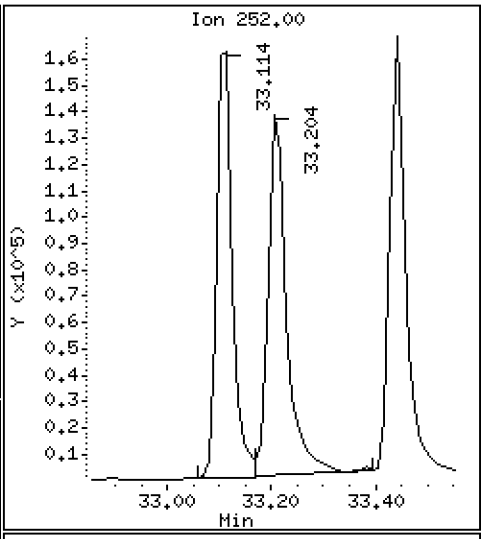
Column phase: Rxi-17Sil MS

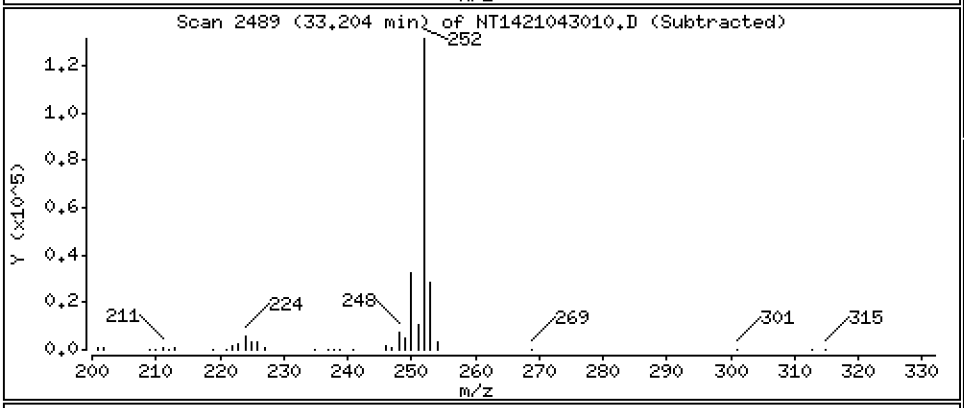
Column diameter: 0.25

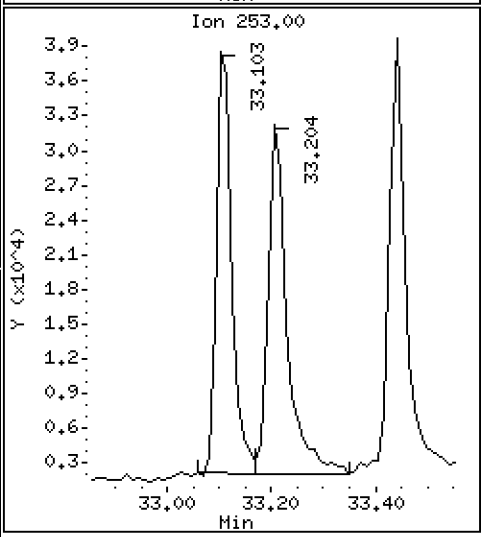
66 Benzo(a)pyrene

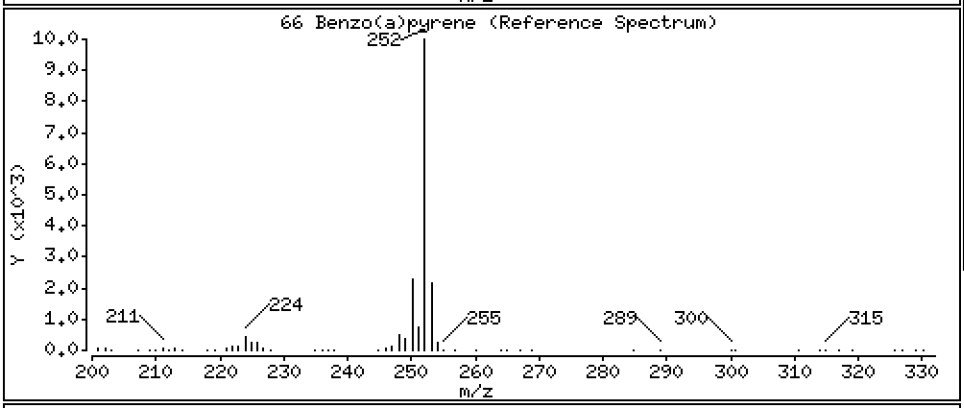
Concentration: 2.211 ug/mL

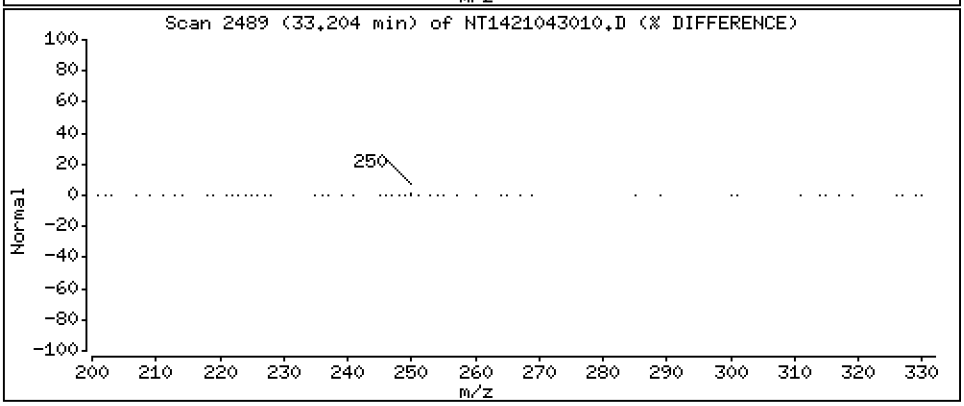












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

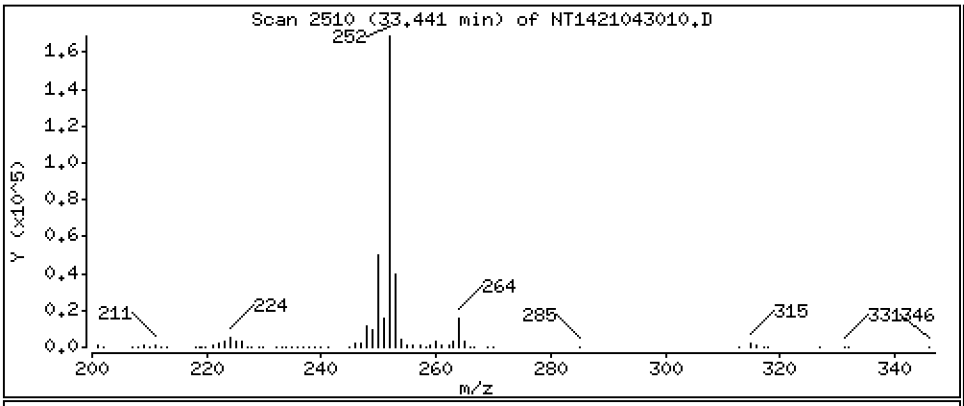
Operator: VTS

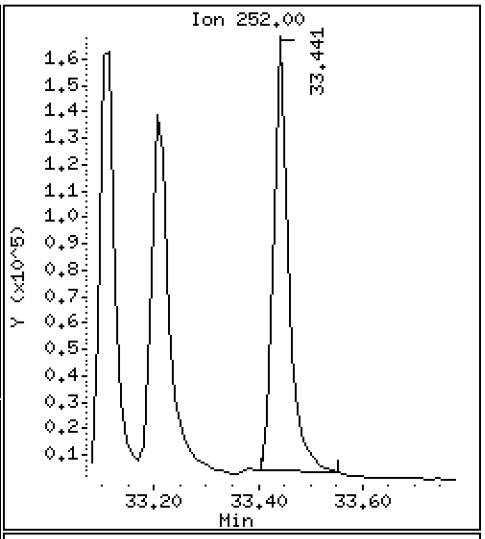
Column phase: Rxi-17Sil MS

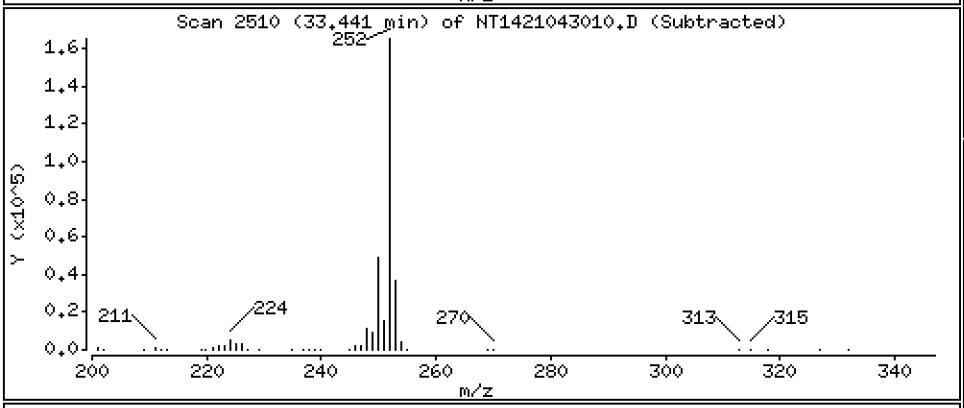
Column diameter: 0.25

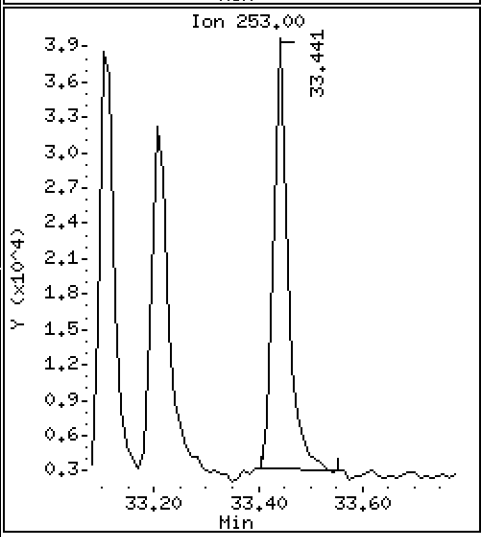
68 Perylene

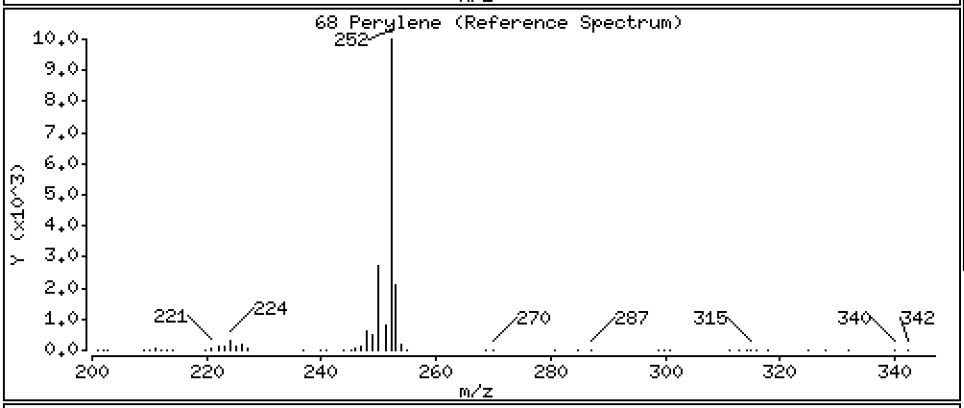
Concentration: 2.415 ug/mL

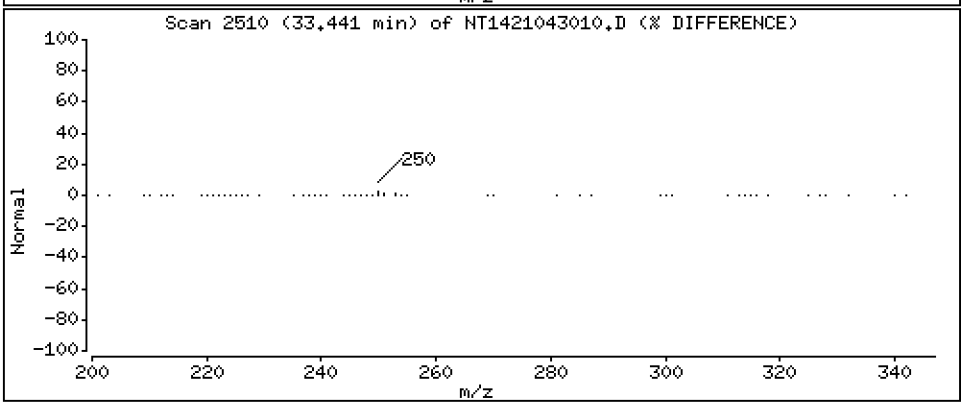












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Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

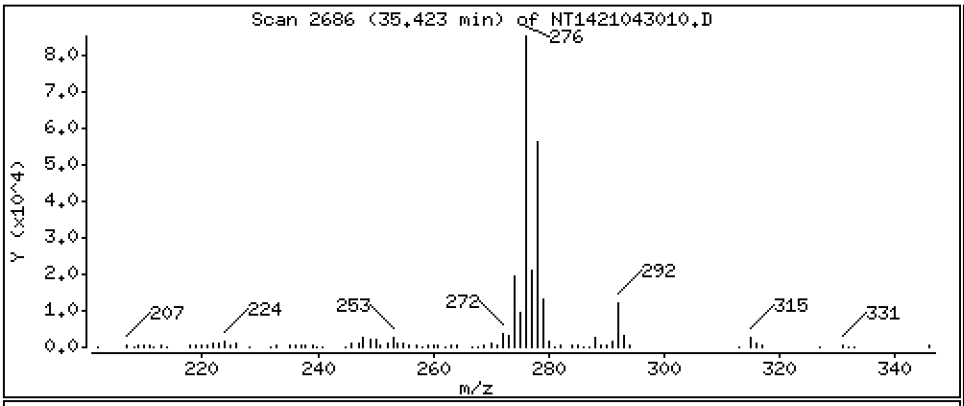
Operator: VTS

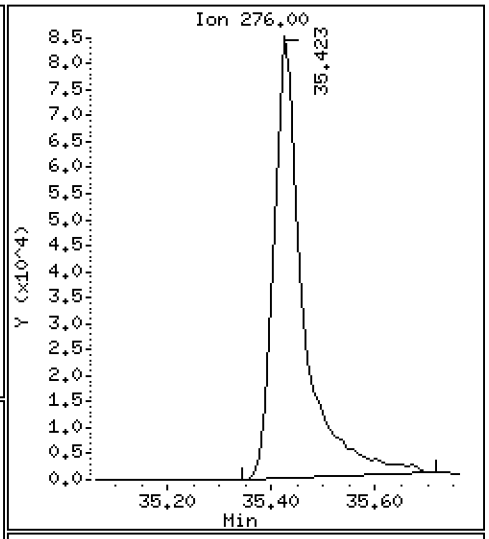
Column phase: Rxi-17Sil MS

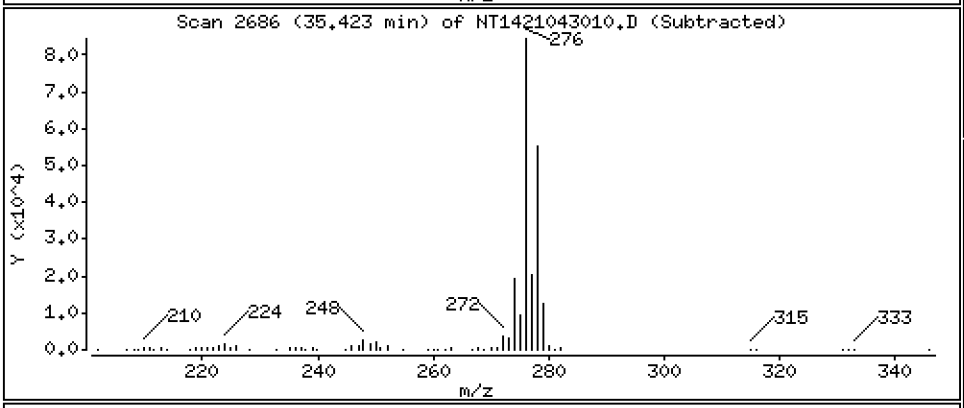
Column diameter: 0.25

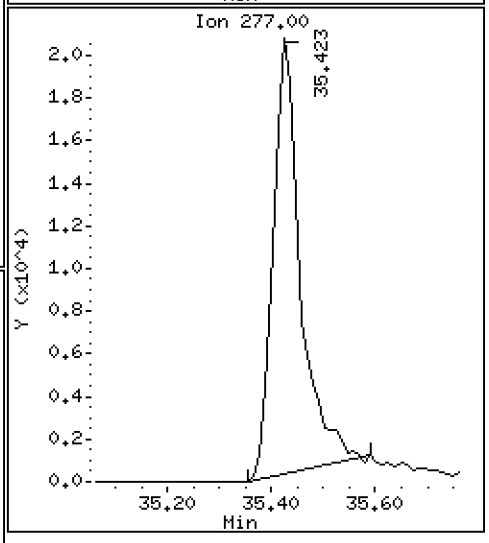
69 Indeno(1,2,3-cd)pyrene

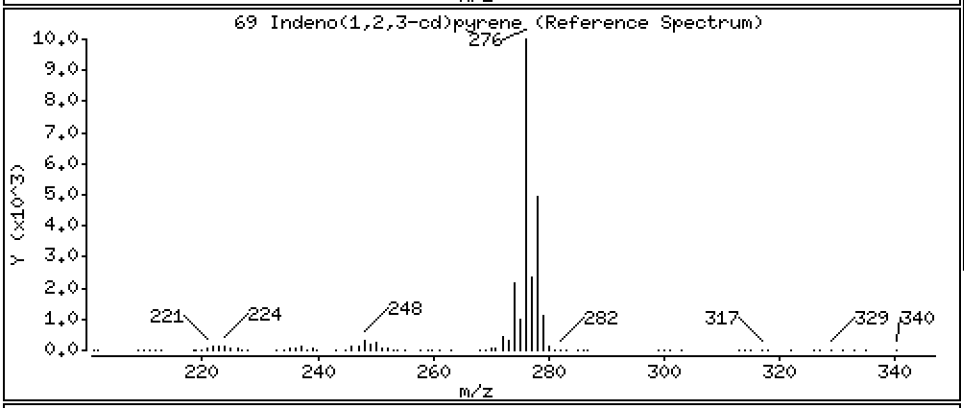
Concentration: 2.236 ug/mL

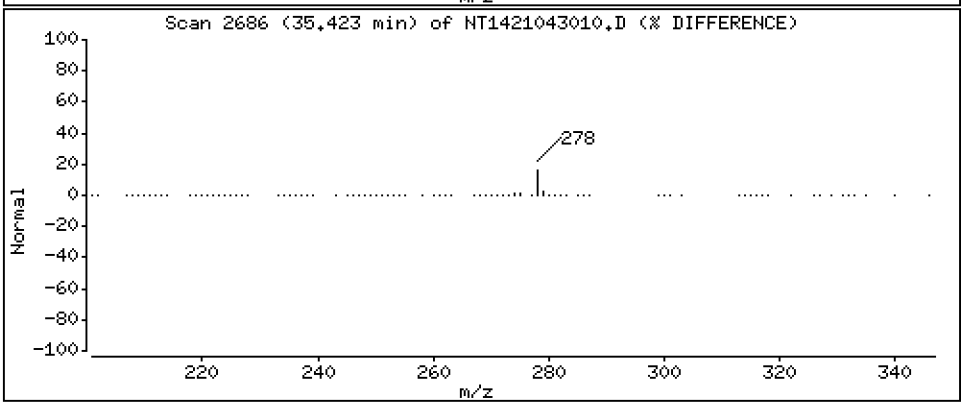












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

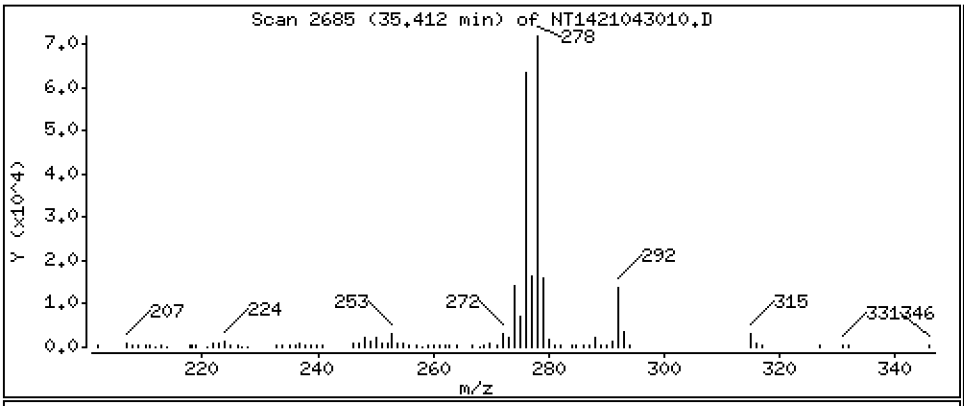
Operator: VTS

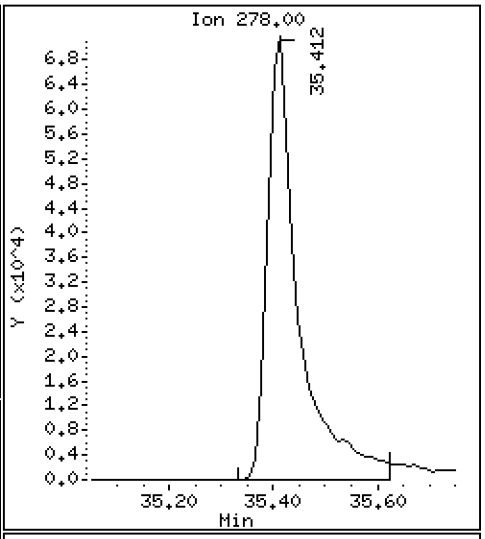
Column phase: Rxi-17Sil MS

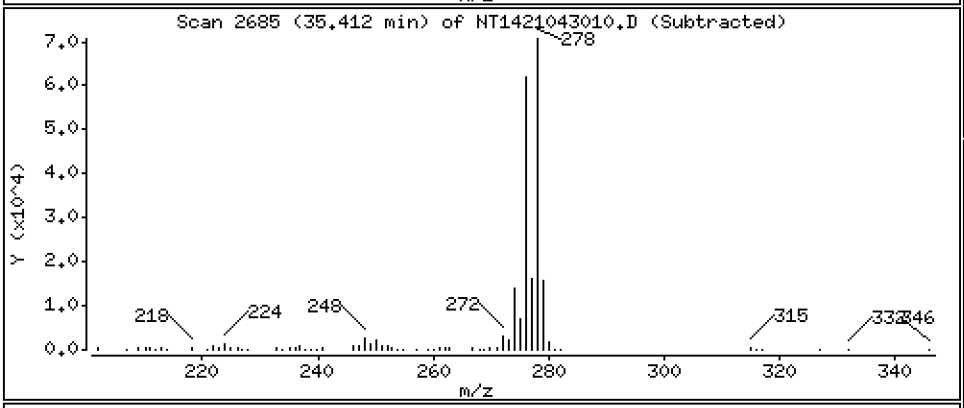
Column diameter: 0.25

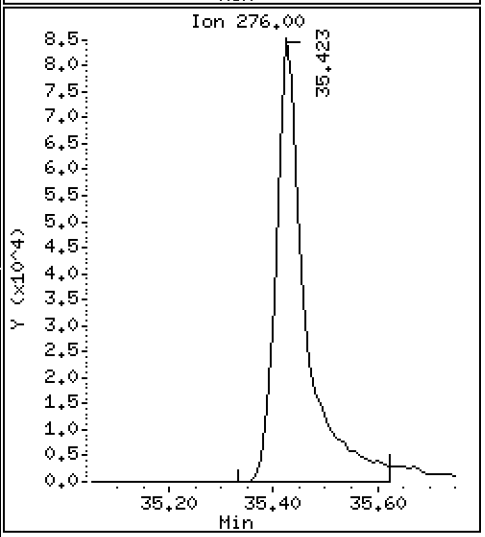
70 Dibenzo(a,h)anthracene

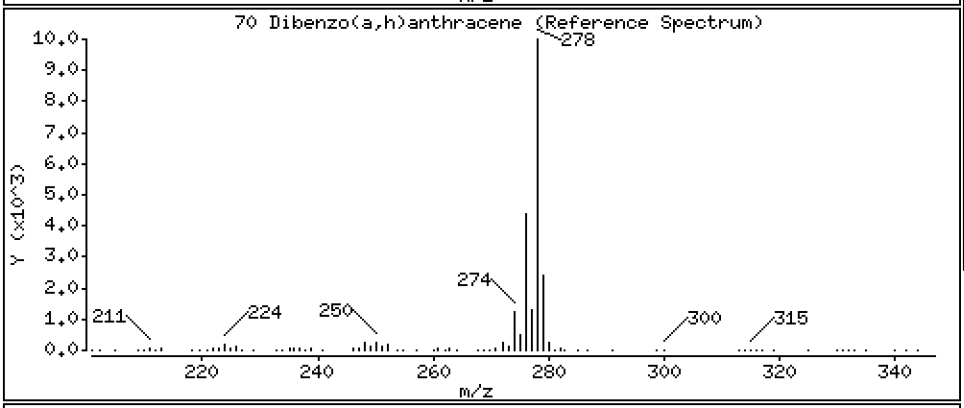
Concentration: 2.291 ug/mL

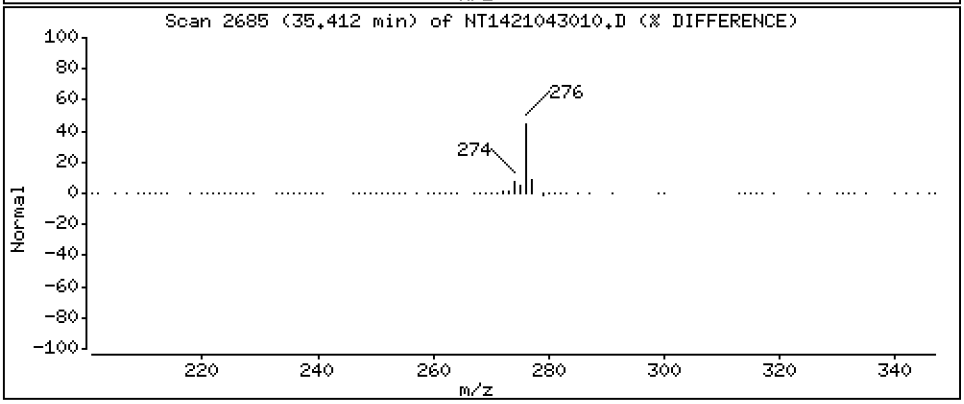












Data File: \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D

Date : 30-APR-2021 14:41

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-SCV1

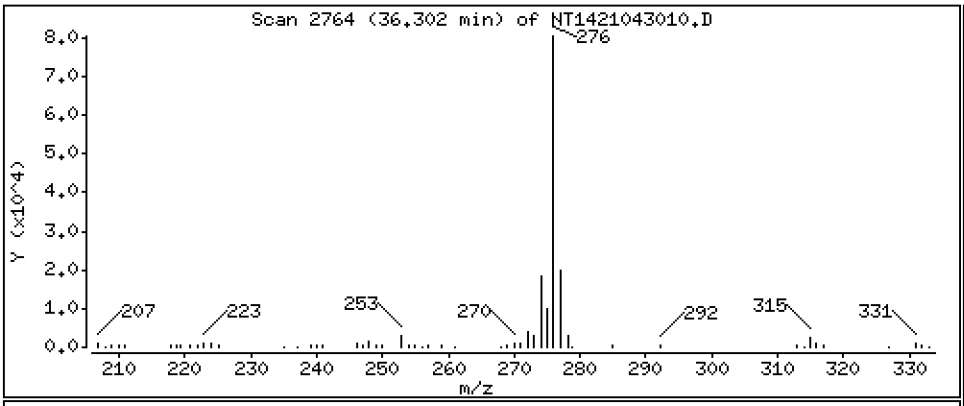
Operator: VTS

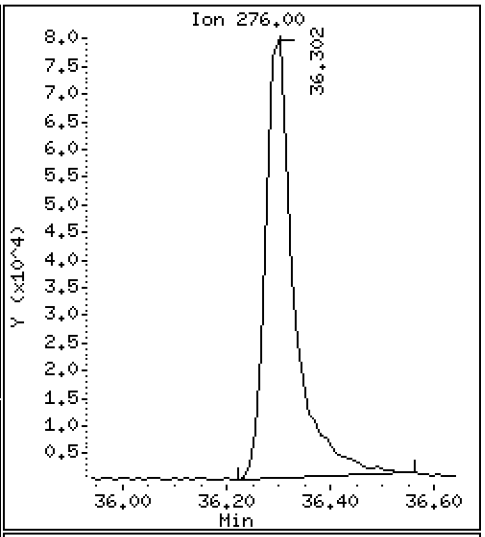
Column phase: Rxi-17Sil MS

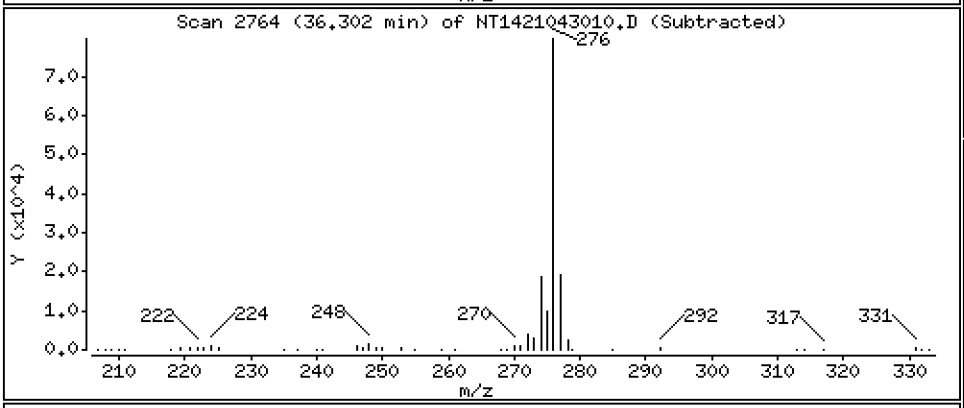
Column diameter: 0.25

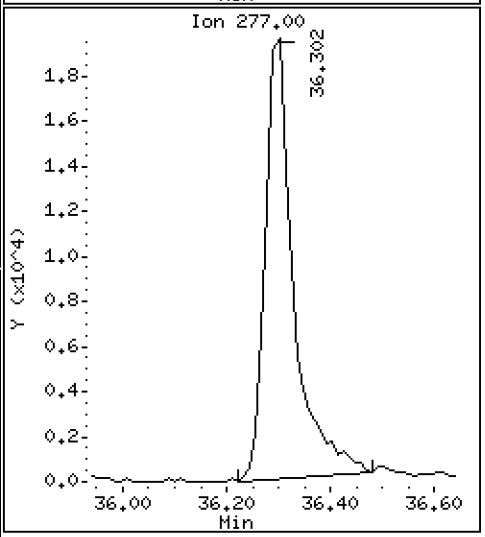
74 Benzo(g,h,i)perylene

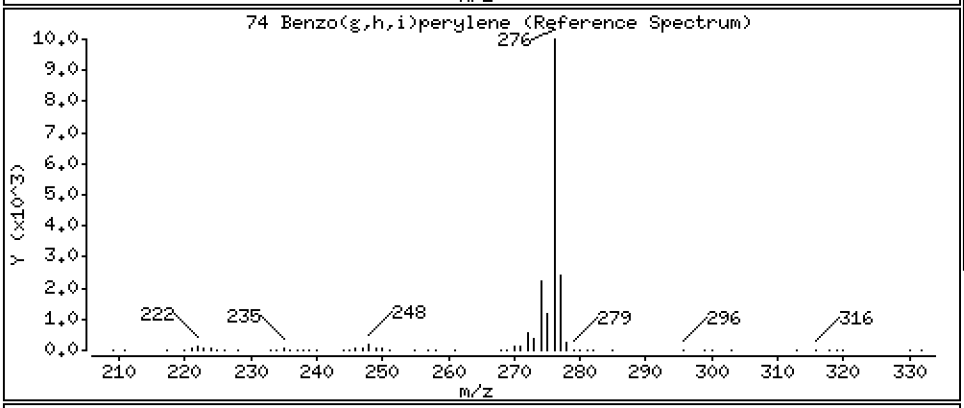
Concentration: 2.352 ug/mL

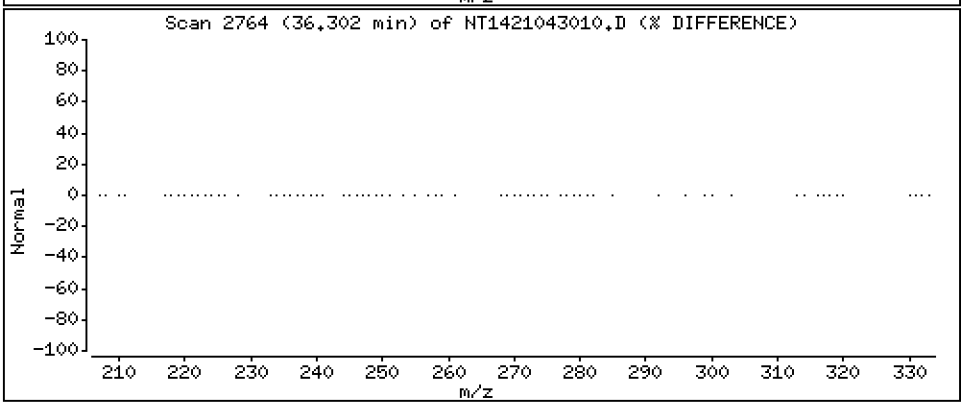












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Inj Date : 30-APR-2021 14:41
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-SCV1
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Meth Date : 01-May-2021 07:40 van Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: VANS-202011

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	7.045	7.035	(0.375)	74342	2.84314	2.843
	2 cis-Decalin	138	8.155	8.165	(0.434)	52523	2.90966	2.910
$	6 Naphthalene-d8	136	11.776	11.776	(0.627)	604964	2.98636	2.986(R)
	7 Naphthalene	128	11.836	11.846	(0.630)	573337	2.78250	2.783
	12 Benzo(b)thiophene	134	12.295	12.295	(0.655)	456850	2.78683	2.787
	16 2-Methylnaphthalene	141	13.680	13.680	(0.728)	312811	2.84483	2.845
	17 1-methylnaphthalene	141	14.131	14.131	(0.752)	293934	2.82127	2.821
	18 Biphenyl	154	15.317	15.317	(0.815)	435061	2.76462	2.765
	19 2,6-Dimethylnaphthalene	156	15.394	15.394	(0.820)	305582	2.82199	2.822
	20 Acenaphthylene	152	16.955	16.955	(0.903)	492364	2.88930	2.889
$	21 Acenaphthene-d10	164	17.252	17.241	(0.918)	298420	3.01695	3.017(R)
	22 Acenaphthene	153	17.362	17.361	(0.924)	329675	3.01019	3.010
	23 Dibenzofuran	168	17.735	17.735	(0.944)	459290	2.76760	2.768
	24 1,6,7-Trimethylnaphthalene	170	17.966	17.966	(0.957)	277803	2.92320	2.923
*	25 Fluorene-d10	176	18.783	18.781	(1.000)	351020	2.00000	
	26 Fluorene	166	18.885	18.883	(1.005)	342973	2.84375	2.844
	30 Dibenzothiophene	184	21.796	21.794	(1.160)	423593	2.78230	2.782
$	35 Phenanthrene-d10	188	22.104	22.102	(0.995)	446008	2.66948	2.669(R)
	36 Phenanthrene	178	22.192	22.190	(0.999)	460265	2.46754	2.468
*	250 Anthracene-d10	188	22.225	22.223	(1.000)	309177	2.00000	
	37 Anthracene	178	22.291	22.289	(1.003)	428535	2.49230	2.492
	42 Carbazole	167	23.566	23.565	(1.060)	338612	2.34287	2.343
	43 1-Methylphenanthrene	192	24.017	24.015	(1.081)	293776	2.59400	2.594
	44 Fluoranthene	202	25.996	25.994	(1.170)	436345	2.63403	2.634
	46 Pyrene	202	26.843	26.841	(1.208)	433716	2.52654	2.527
	51 Naphthobenzothiophene	234	Compound Not Detected.					
	55 Benzo(a)anthracene	228	29.971	29.964	(0.907)	342259	2.27793	2.278
$	56 Chrysene-d12	240	30.095	30.087	(0.911)	337659	2.82827	2.828(RM)
	57 Chrysene	228	30.163	30.166	(0.913)	394981	2.57401	2.574
	62 Benzo(b)fluoranthene	252	32.393	32.386	(0.980)	324344	2.32564	2.326
	63 Benzo(k)fluoranthene	252	32.438	32.430	(0.982)	391530	2.30379	2.304(M)
	293 Benzo(j)fluoranthene	252	32.494	32.498	(0.983)	393189	2.51567	2.516(M)
	246 Total Benzofluoranthenes	252	32.494	32.497	(0.983)	1066161	6.96004	6.960(M)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.046	33.050	(1.000)	328565	2.00000	
64 Benzo(e)pyrene	252	33.114	33.106	(1.002)	343391	2.45382	2.454
66 Benzo(a)pyrene	252	33.204	33.208	(1.005)	317871	2.21084	2.211
$ 67 Perylene-d12	264	33.384	33.388	(1.010)	320102	2.50514	2.505(RM)
68 Perylene	252	33.440	33.433	(1.012)	322846	2.41544	2.415(M)
69 Indeno(1,2,3-cd)pyrene	276	35.422	35.415	(1.072)	332125	2.23617	2.236(M)
70 Dibenzo(a,h)anthracene	278	35.411	35.404	(1.072)	294257	2.29093	2.291
74 Benzo(g,h,i)perylene	276	36.301	36.293	(1.098)	296119	2.35214	2.352(M)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043010.D
Lab Smp Id: SJD0305-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\ALKYLPNA.m
Misc Info:

Calibration Date: 30-APR-2021
Calibration Time: 07:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	420456	210228	840912	351020	-16.51
250 Anthracene-d10	381033	190517	762066	309177	-18.86
251 Benzo(e)pyrene-d1	370998	185499	741996	328565	-11.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.78	18.28	19.28	18.78	0.01
250 Anthracene-d10	22.22	21.72	22.72	22.23	0.01
251 Benzo(e)pyrene-d1	33.05	32.55	33.55	33.05	-0.01

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1421043010.D

Lab ID: SJD0305-SCV1
nt14.i, 20210430.b\ALKYLPNA.m,   30-APR-2021 14:41

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

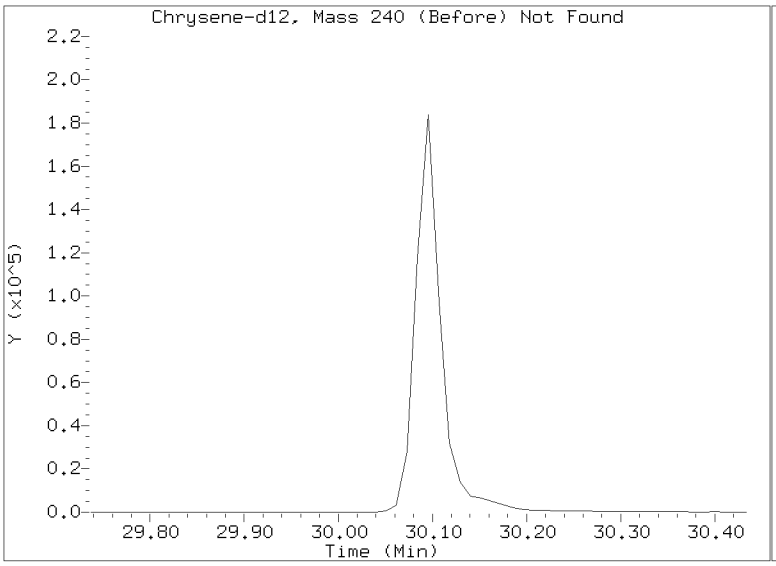
RRT check based on Ccal File: NT1421043009.D

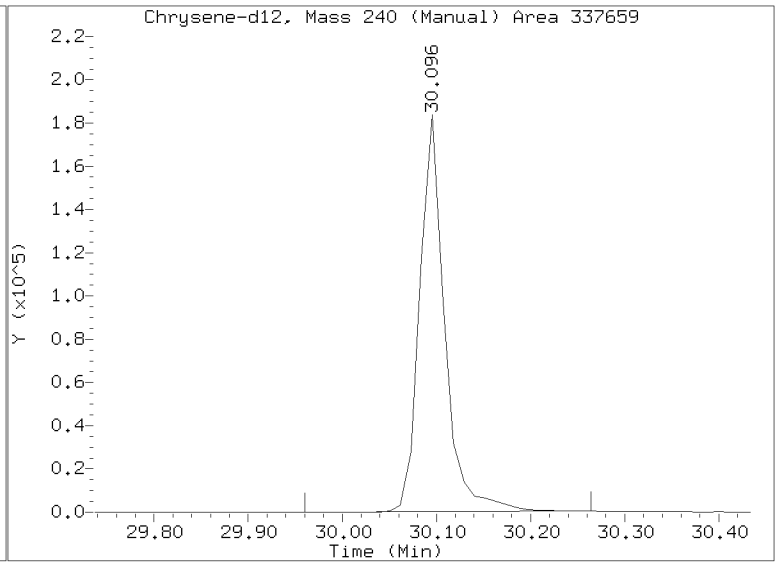
On Column LOD for nt14.i, 20210430.b\ALKYLPNA.m, TARGETS.sub = 0.0000

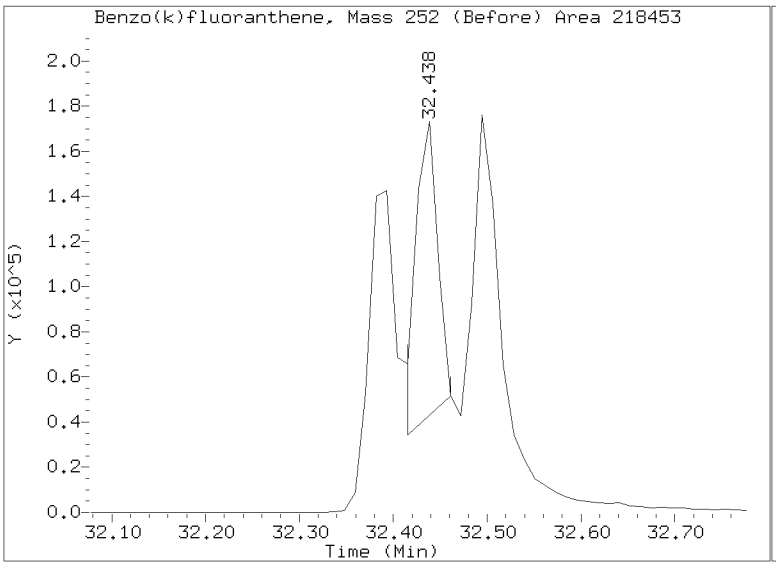
* Only compounds listed in the work order have been verified by the analyst *

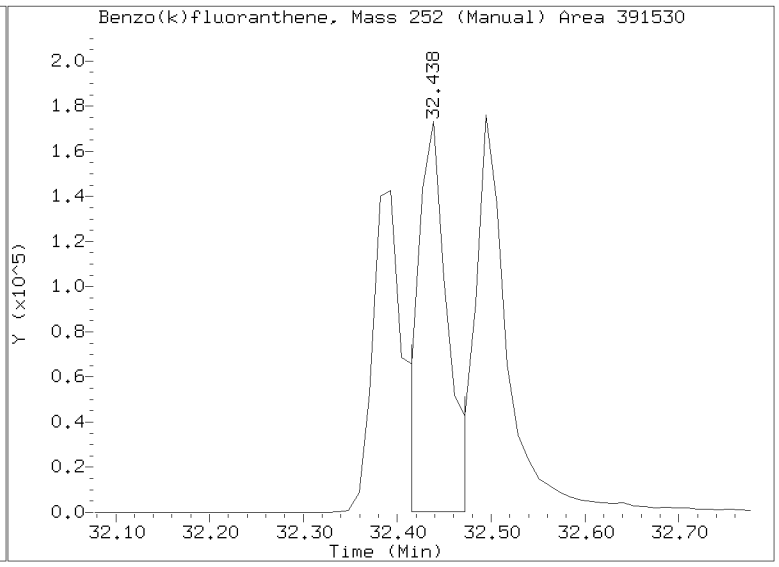
Quant Ion Manual Peak Adjustment Report

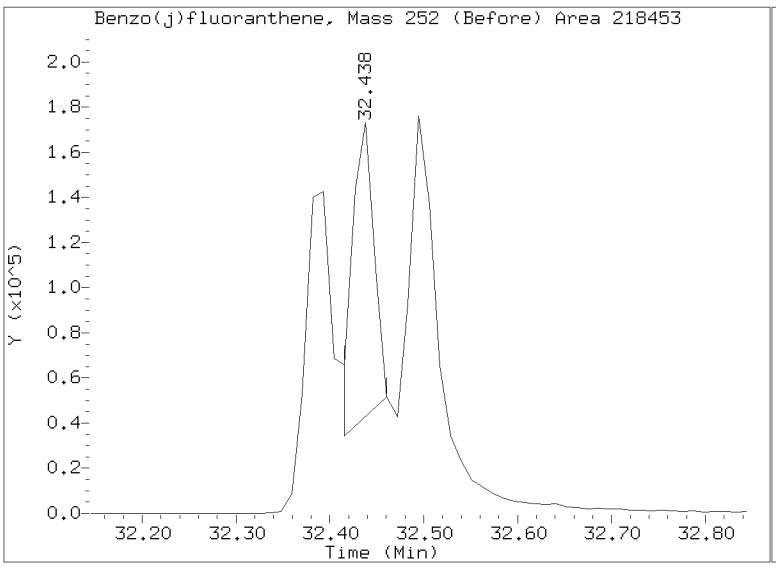
Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

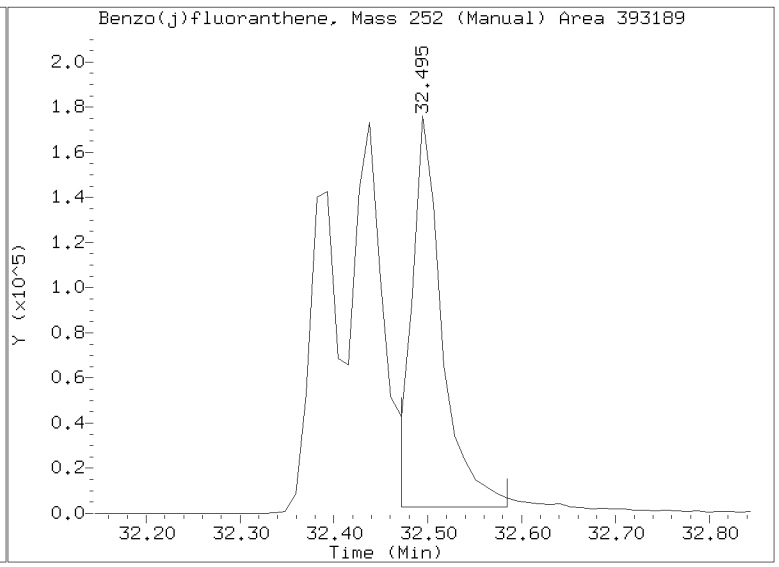












Quant Ion Manual Peak Adjustment Report

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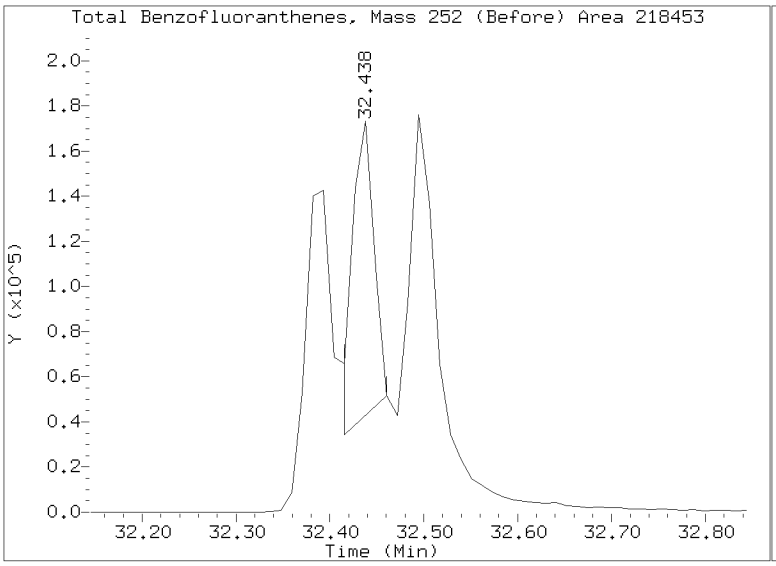
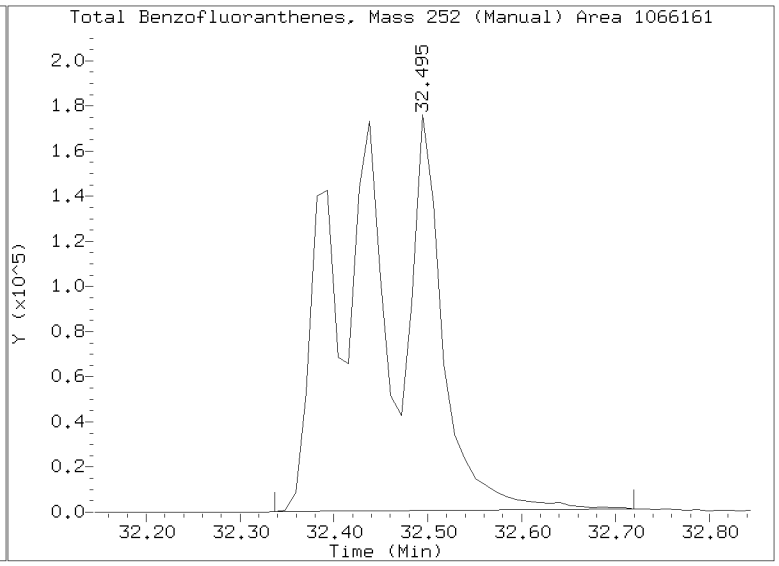
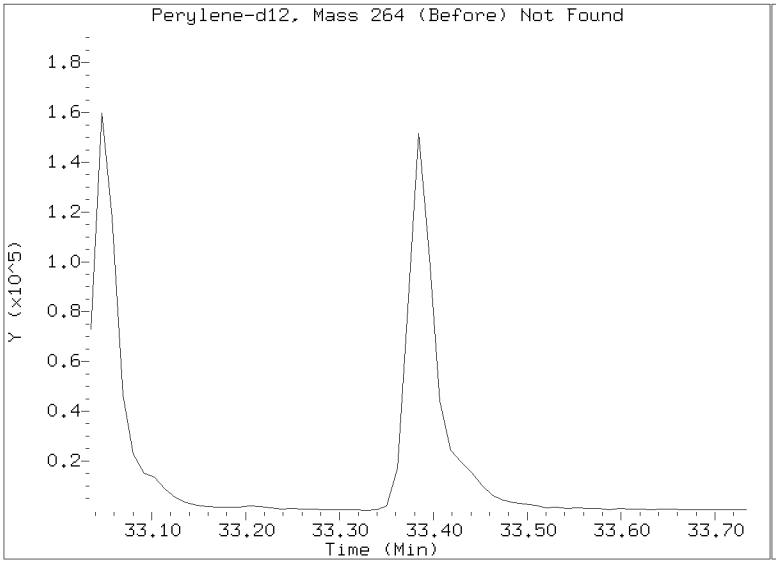
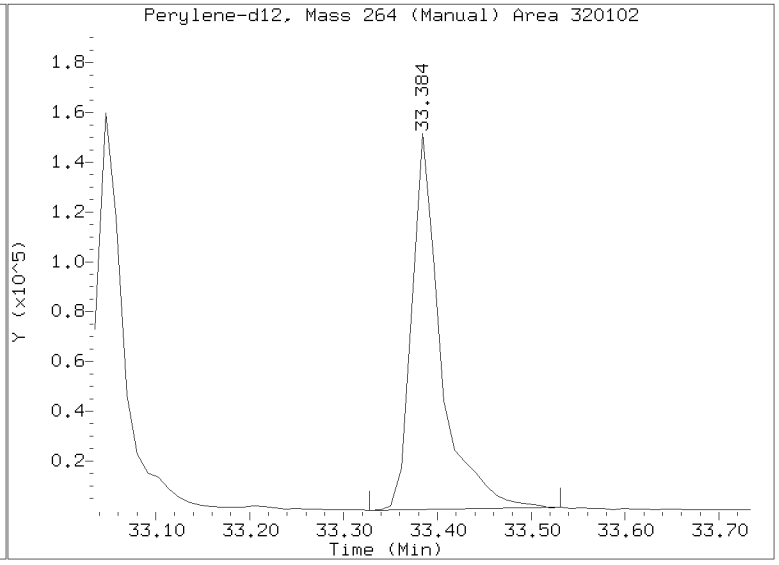
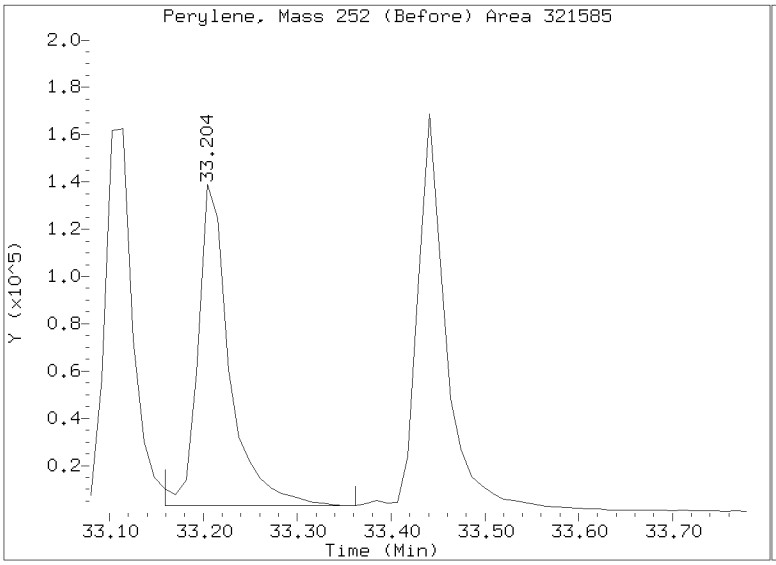
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18

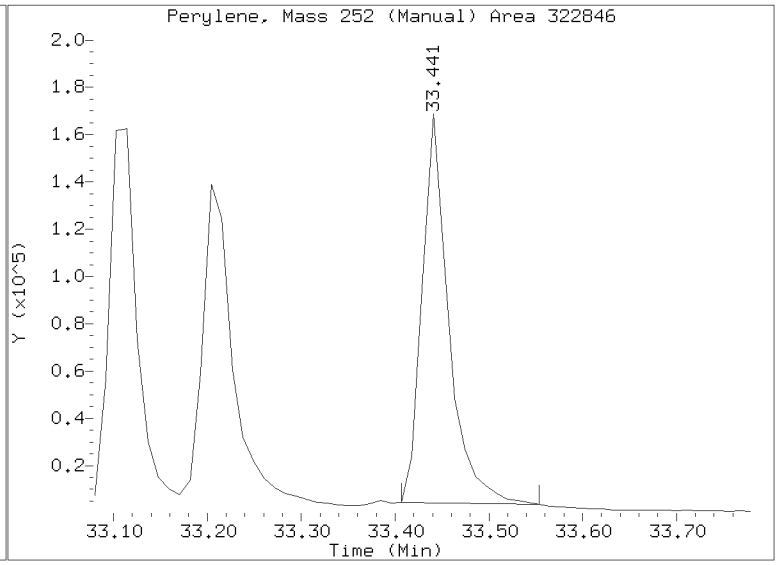






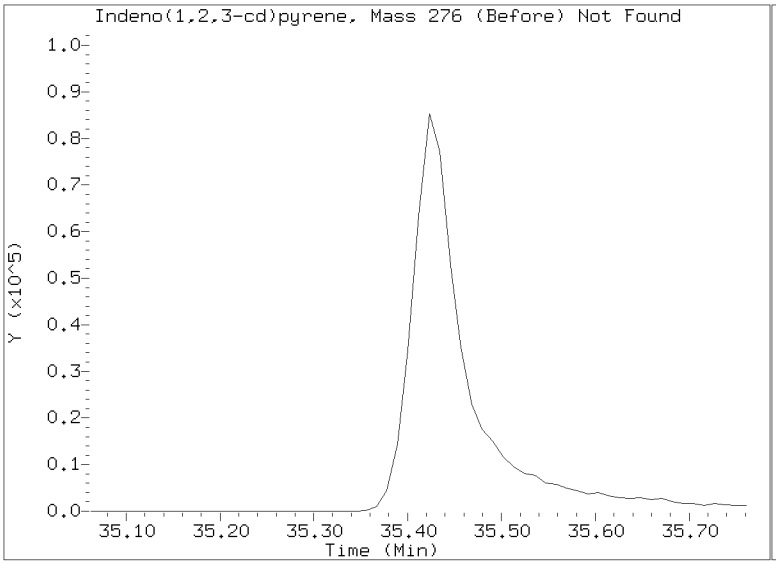


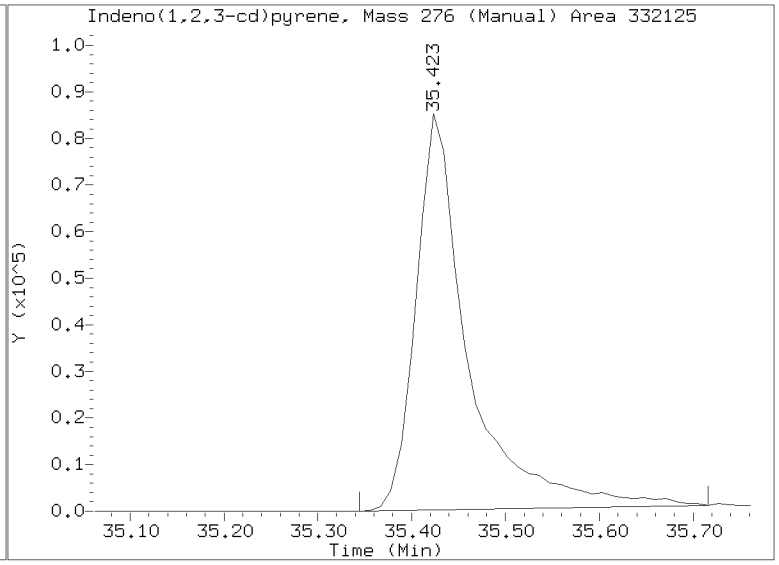


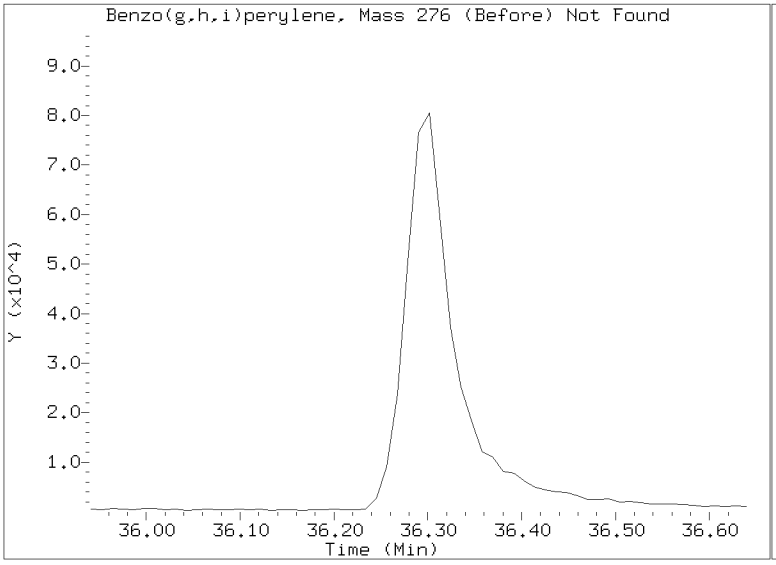


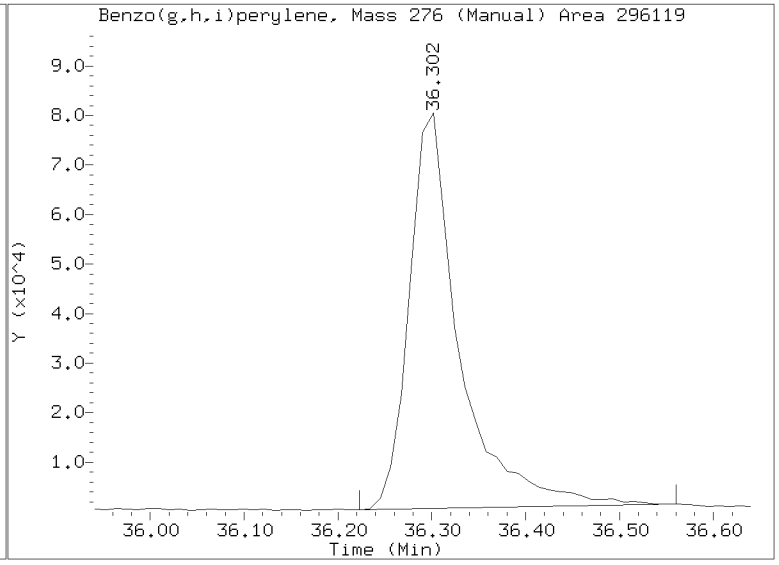
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt14.i/20210430.b/NT1421043010.D
Injection Date: 30-APR-2021 14:41
Lab ID:SJD0305-SCV1 Client ID:
Report Date: 05/01/2021 09:18









CONTINUING CALIBRATION CHECK
EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043038.D	Calibration Date:	04/30/2021
Sequence:	SJD0345	Injection Date:	05/01/21
Lab Sample ID:	SJD0345-CCV1	Injection Time:	13:10
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
trans-Decalin	A	2.5000	2.89	0.1489821	0.1723816		15.7	+/-50
cis-Decalin	A	2.5000	3.01	0.1028504	0.1236472		20.2	+/-50
Naphthalene	A	2.5000	2.88	1.1740120	1.3539720		15.3	+/-50
1-Methylnaphthalene	A	2.5000	2.93	0.5936130	0.6956327		17.2	+/-50
2-Methylnaphthalene	A	2.5000	2.94	0.6265036	0.7371810		17.7	+/-50
Biphenyl	A	2.5000	2.92	0.8966280	1.0466720		16.7	+/-50
2,6-Dimethylnaphthalene	A	2.5000	2.96	0.6169792	0.7304592		18.4	+/-50
Acenaphthylene	A	2.5000	3.08	0.9709370	1.1977680		23.4	+/-50
Acenaphthene	A	2.5000	2.98	0.6240076	0.7433487		19.1	+/-50
Dibenzofuran	A	2.5000	2.95	0.9455456	1.1160860		18.0	+/-50
2,3,5-Trimethylnaphthalene	A	2.5000	3.04	0.5414731	0.6583564		21.6	+/-50
Fluorene	A	2.5000	2.96	0.6871732	0.8131411		18.3	+/-50
Benzo(b)thiophene	A	2.5000	2.93	0.9340302	1.0941720		17.1	+/-50
Phenanthrene	A	2.5000	2.58	1.2066070	1.2463190		3.3	+/-50
Anthracene	A	2.5000	2.61	1.1122650	1.1616030		4.4	+/-50
Carbazole	A	2.5000	2.56	0.8290303	0.9575932		2.2	+/-50
1-Methylphenanthrene	A	2.5000	2.79	0.7326040	0.8178447		11.6	+/-50
Fluoranthene	A	2.5000	2.76	1.0715980	1.1819010		10.3	+/-50
Dibenzothiophene	A	2.5000	2.93	0.8674458	1.0178260		17.3	+/-50
Pyrene	A	2.5000	2.79	1.1104570	1.2375890		11.4	+/-50
Benzo(a)anthracene	A	2.5000	2.46	0.8222601	0.9009331		-1.8	+/-50
Chrysene	A	2.5000	2.61	0.9340580	0.9762221		4.5	+/-50
Benzo(b)fluoranthene	A	2.5000	2.55	0.7491309	0.8681620		1.9	+/-50
Benzo(j)fluoranthene	A	2.5000	2.66	0.9513865	1.0121350		6.4	
Benzo(k)fluoranthene	A	2.5000	2.44	0.9278309	1.0118860		-2.4	+/-50
Benzo(e)pyrene	A	2.5000	2.59	0.8518347	0.8815221		3.5	+/-50
Benzo(a)pyrene	A	2.5000	2.38	0.7422947	0.8344902		-4.8	+/-50
Indeno(1,2,3-cd)pyrene	A	2.5000	2.40	0.7887712	0.8717737		-3.8	+/-50
Dibenzo(a,h)anthracene	A	2.5000	2.26	0.6549683	0.7049548		-9.8	+/-50
Benzo(g,h,i)perylene	A	2.5000	2.66	0.7663214	0.8147743		6.3	+/-50
Perylene	A	2.5000	2.57	0.8135951	0.8363635		2.8	+/-50
Benzo(b)naphtho(2,1-d)thiophene	A	2.5000	2.74	1.0821370	1.1873990		9.7	+/-50
Naphthalene-d8	A	2.5000	2.93	1.1542130	1.3529230		17.2	
Acenaphthene-d10	A	2.5000	3.00	0.5635830	0.6755640		19.9	

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Instrument ID:	NT14	Calibration:	EE00001
Lab File ID:	NT1421043038.D	Calibration Date:	04/30/2021
Sequence:	SJD0345	Injection Date:	05/01/21
Lab Sample ID:	SJD0345-CCV1	Injection Time:	13:10
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR (RRF)			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenanthrene-d10	A	2.5000	2.62	1.0807840	1.1330090		4.8	
Chrysene-d12	A	2.5000	2.66	0.7267179	0.7720584		6.2	
Perylene-d12	A	2.5000	2.47	0.6899017	0.7669029		-1.4	

* Values outside of QC limits

Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043038.D

Date : 01-MAY-2021 13:10

Client ID:

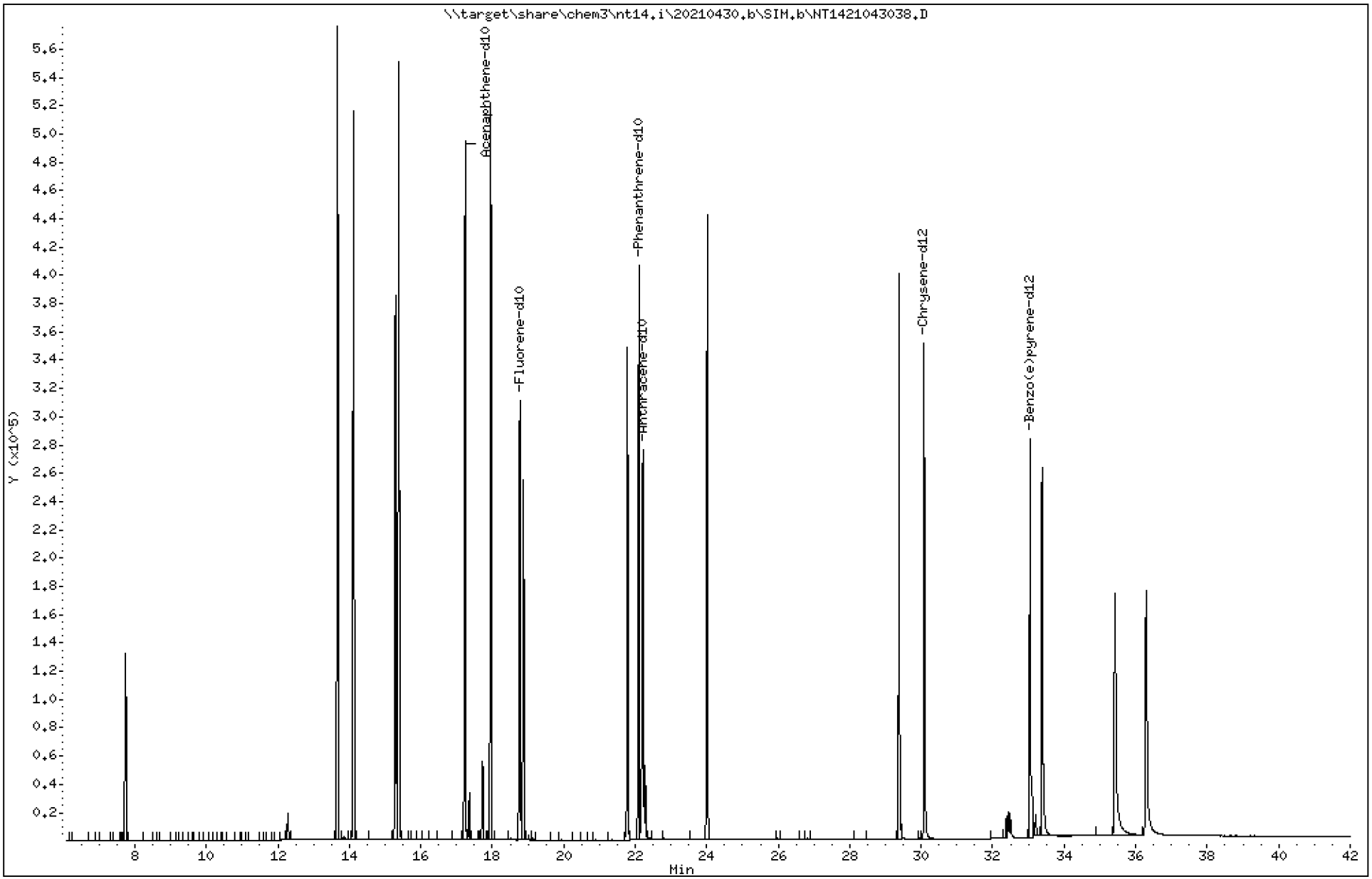
Instrument: nt14.i

Sample Info: SJD0305-CCV2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

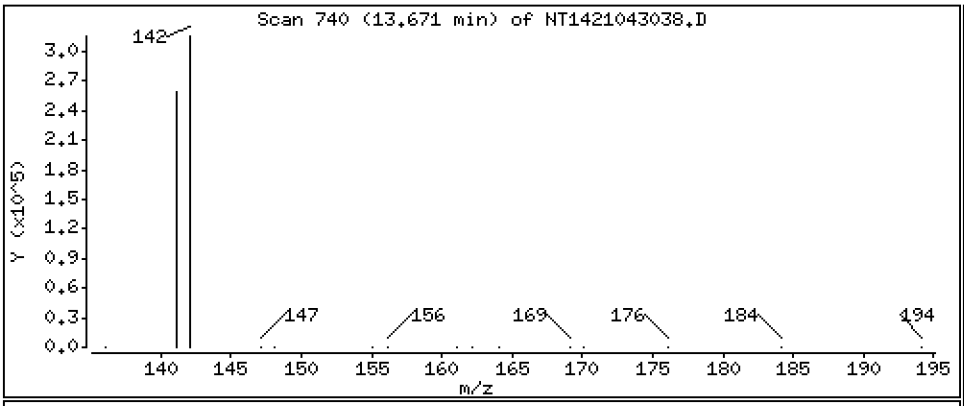
Operator: VTS

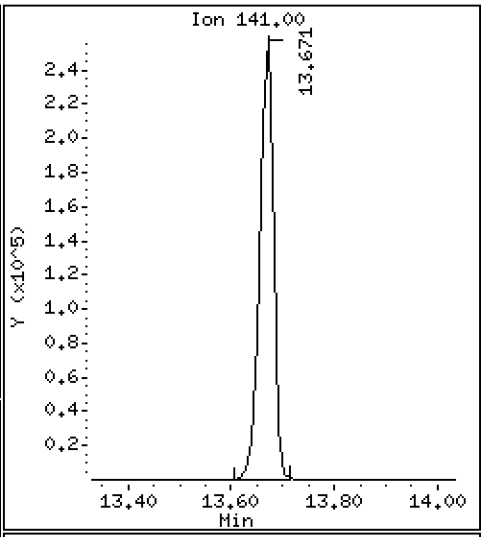
Column phase: Rxi-17Sil MS

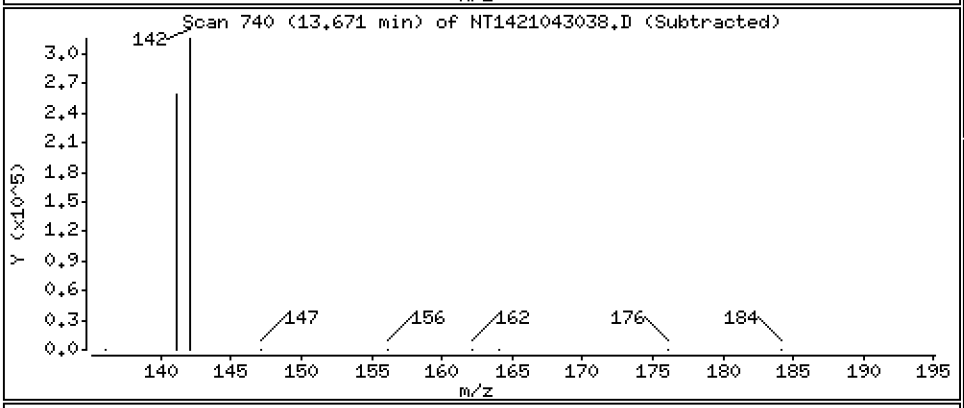
Column diameter: 0.25

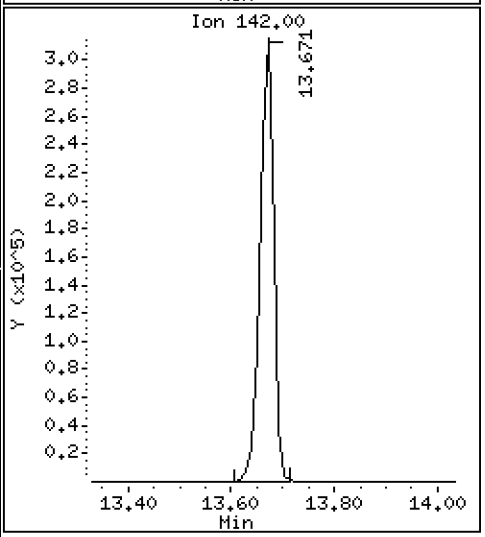
16 2-Methylnaphthalene

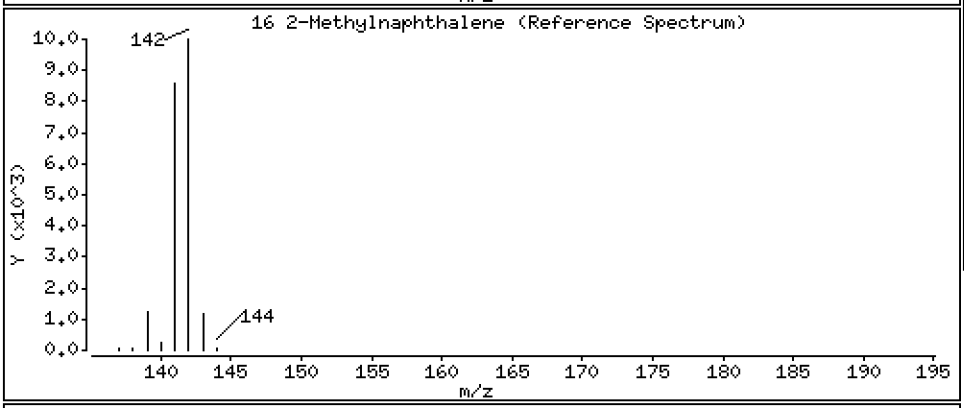
Concentration: 2.835 ug/mL

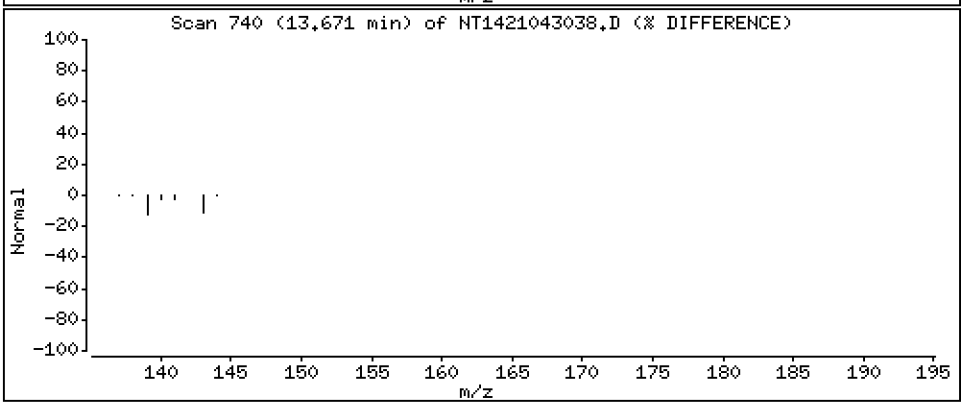












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Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

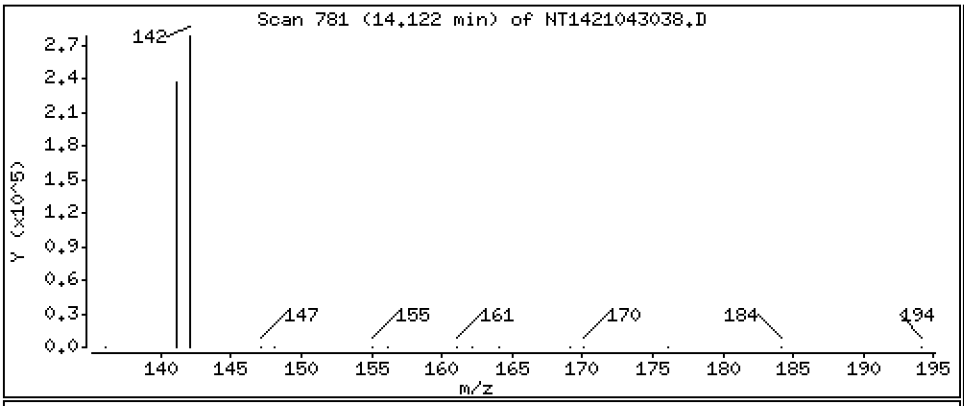
Operator: VTS

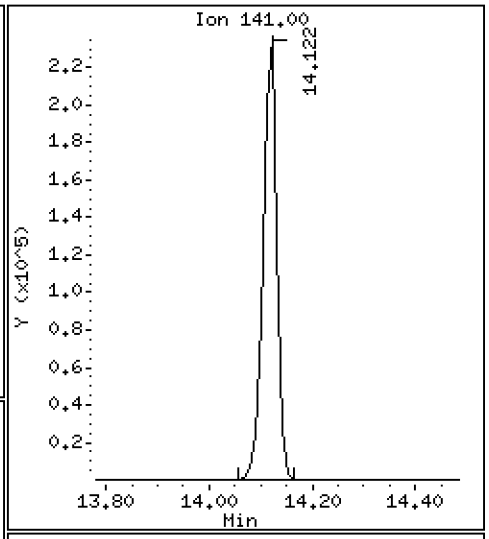
Column phase: Rxi-17Sil MS

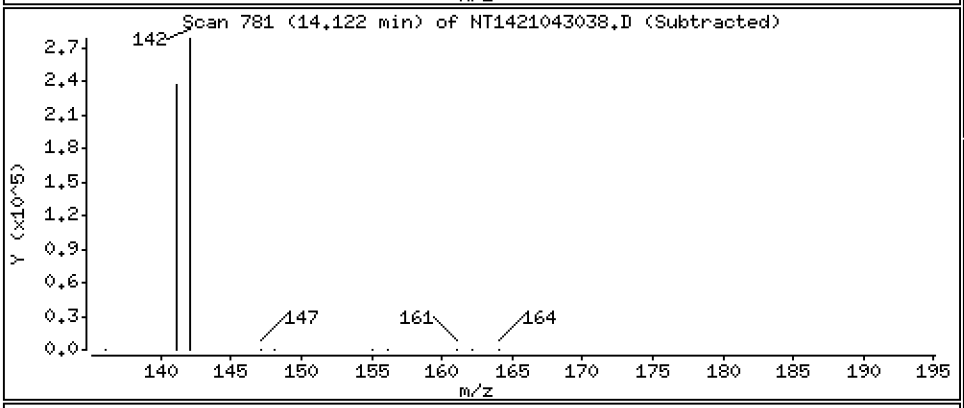
Column diameter: 0.25

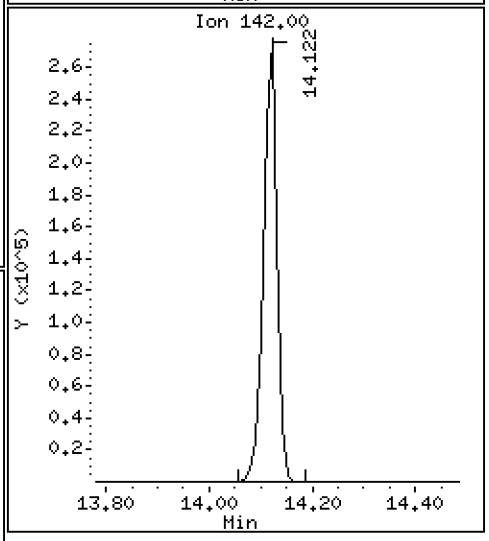
17 1-methylnaphthalene

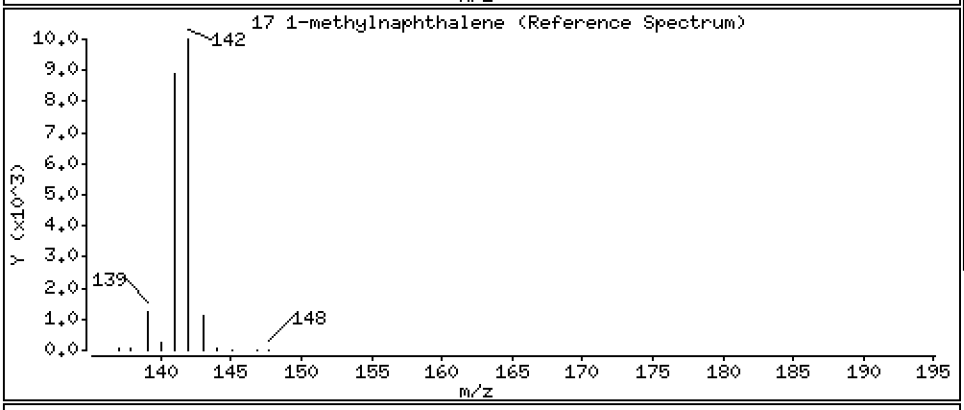
Concentration: 2.822 ug/mL

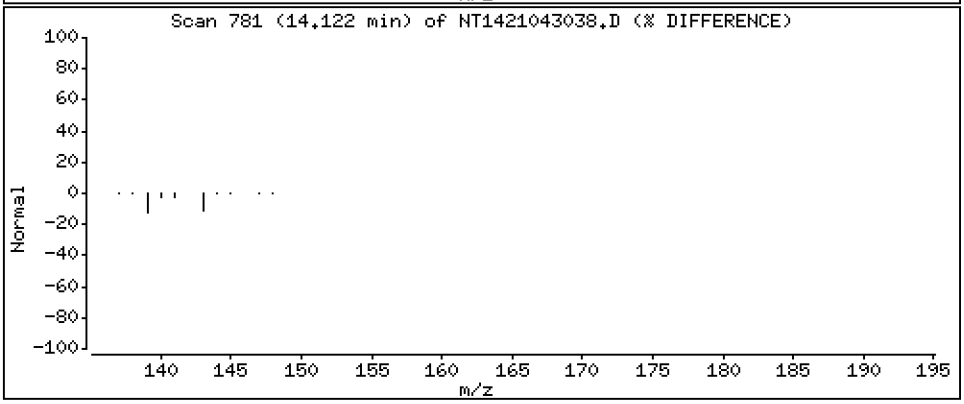












Data File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043038.D

Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

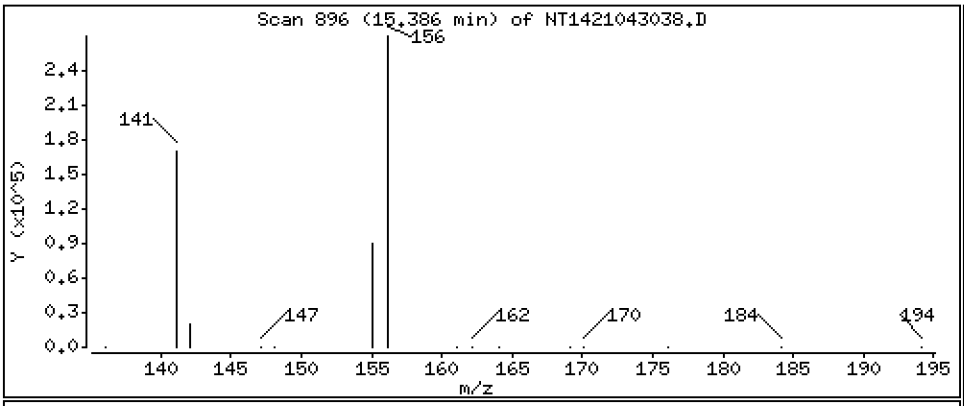
Operator: VTS

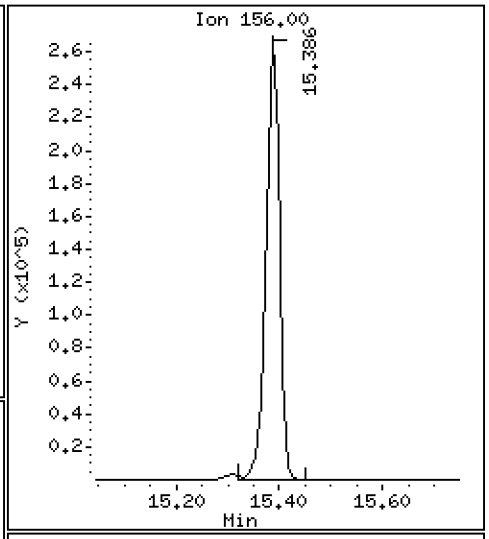
Column phase: Rxi-17Sil MS

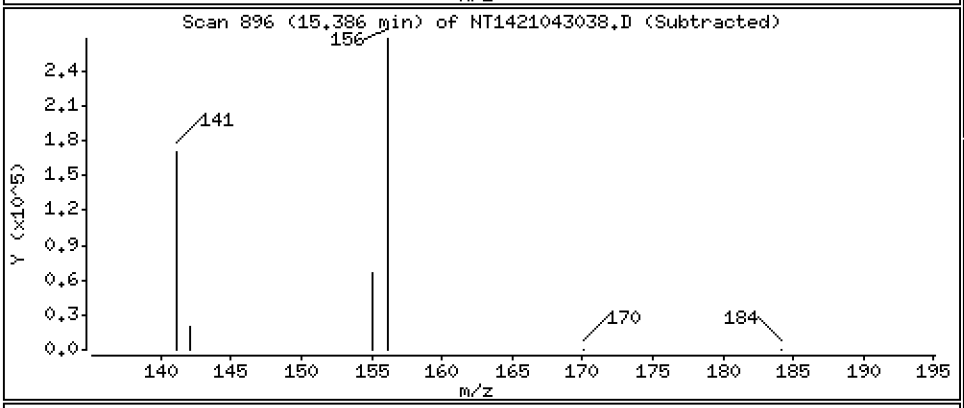
Column diameter: 0.25

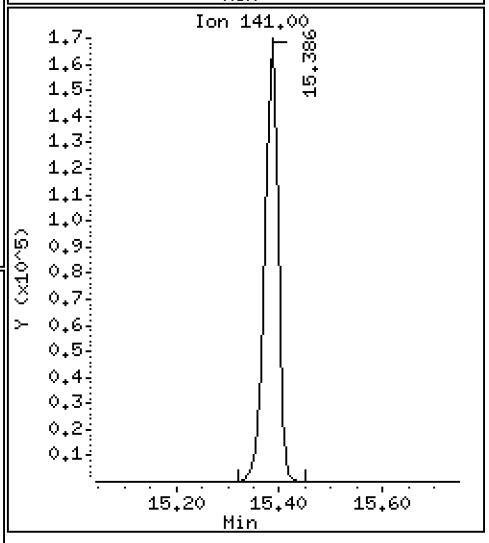
19 2,6-Dimethylnaphthalene

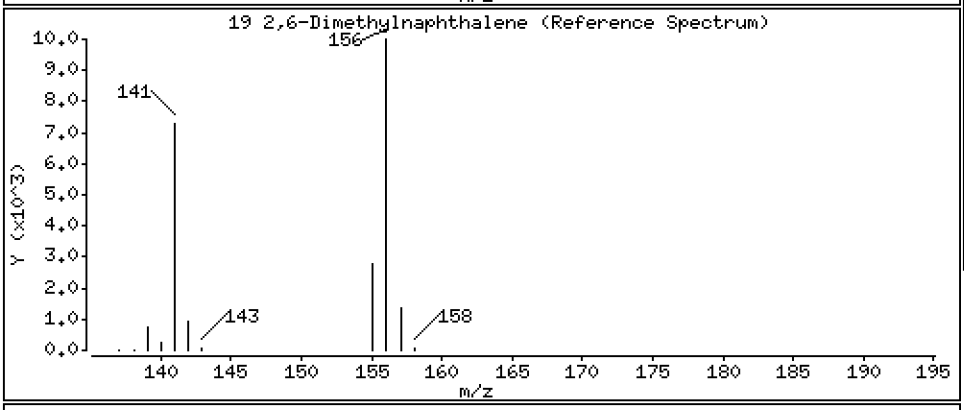
Concentration: 2.957 ug/mL

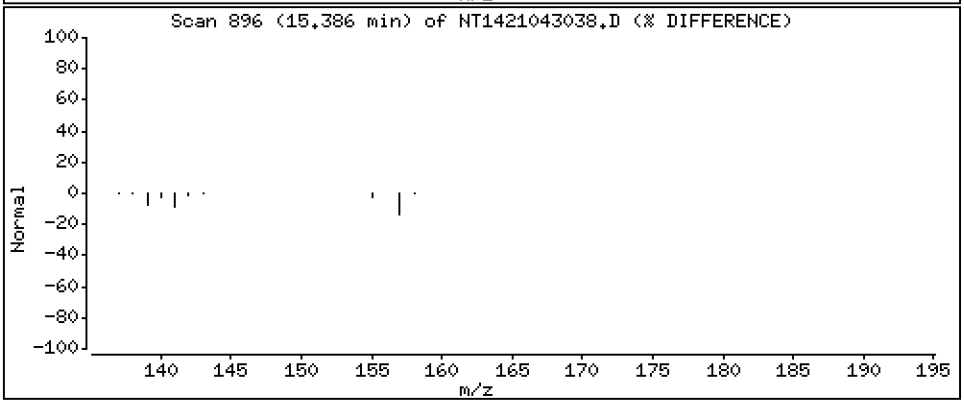












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Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

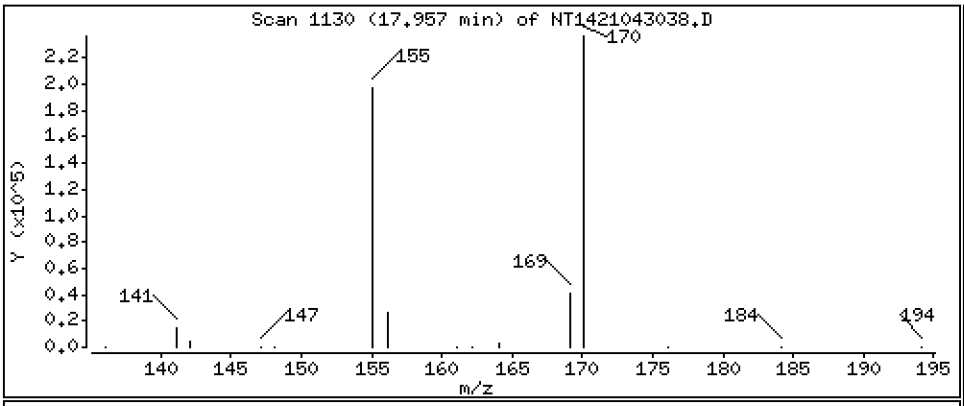
Operator: VTS

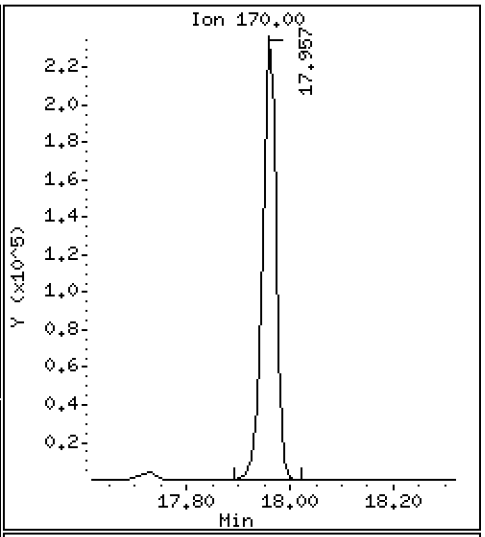
Column phase: Rxi-17Sil MS

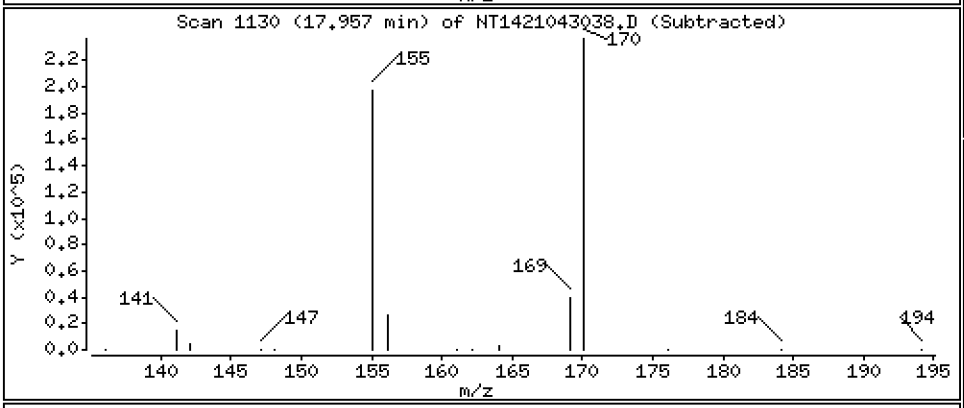
Column diameter: 0.25

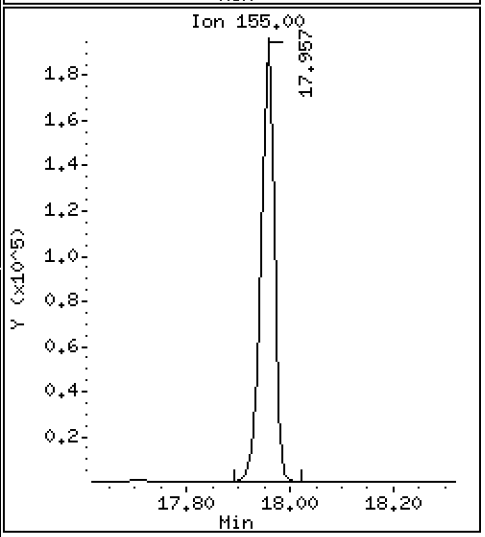
24 1,6,7-Trimethylnaphthalene

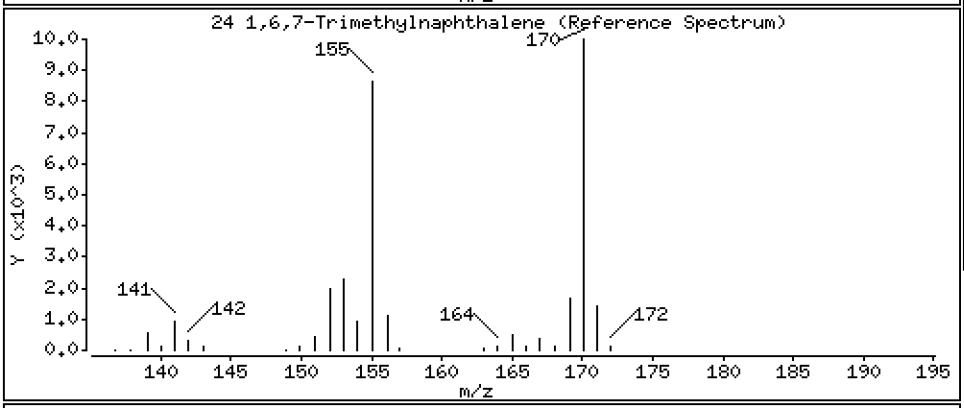
Concentration: 3.025 ug/mL

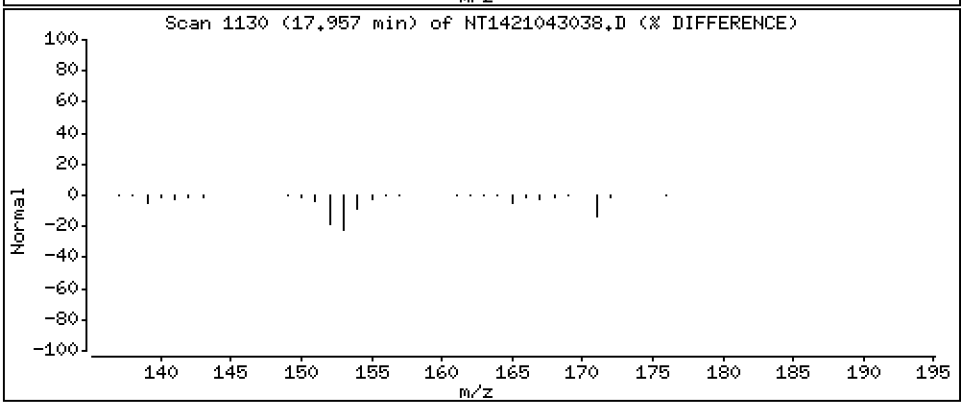












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Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

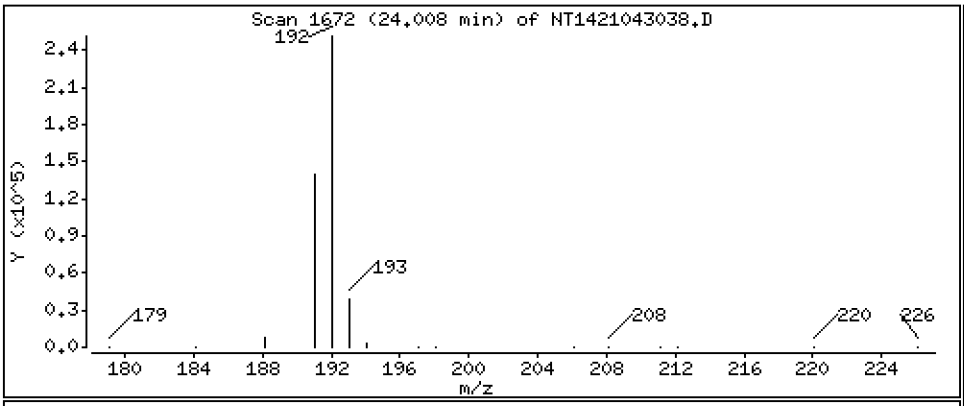
Operator: VTS

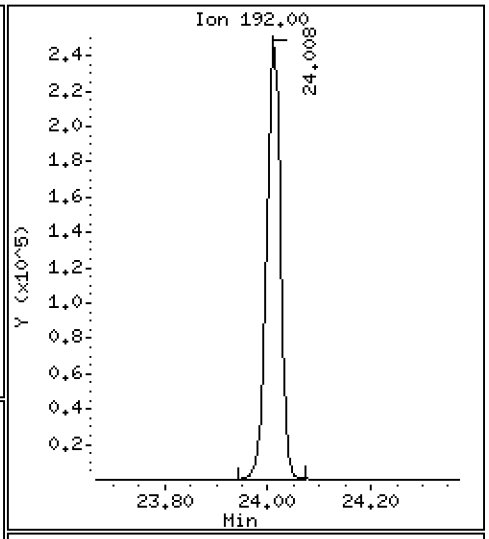
Column phase: Rxi-17Sil MS

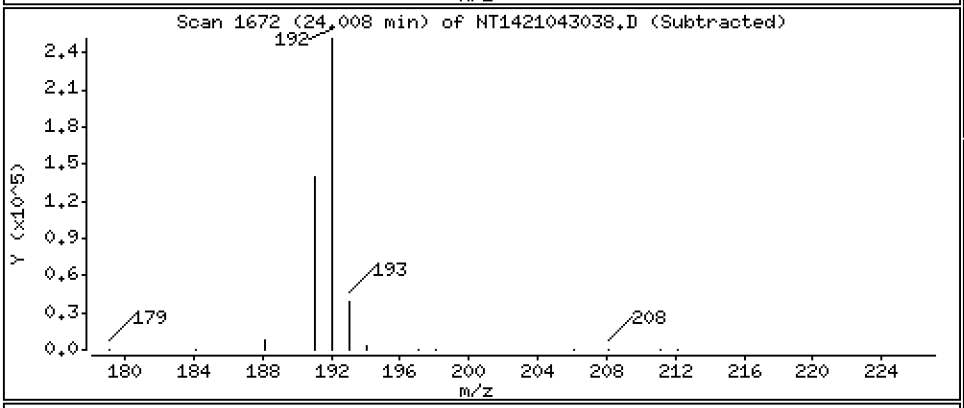
Column diameter: 0.25

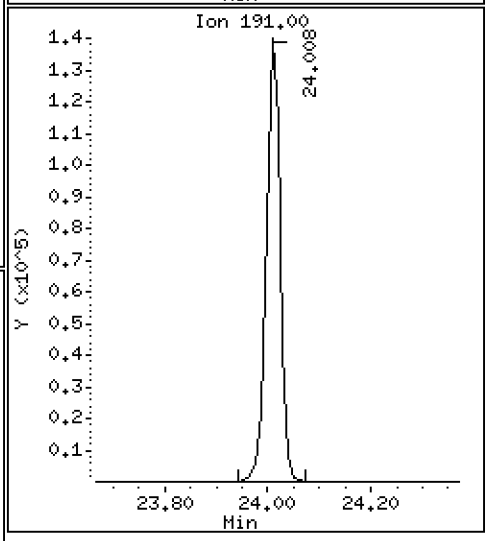
43 1-Methylphenanthrene

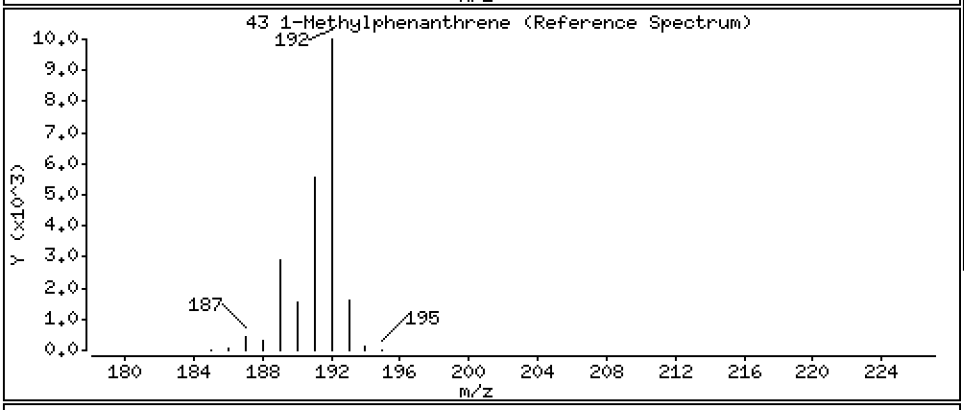
Concentration: 2.752 ug/mL

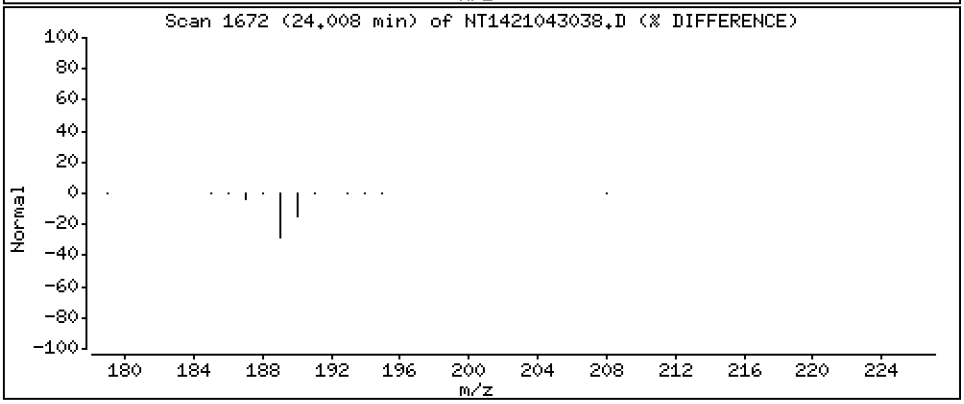












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Date : 01-MAY-2021 13:10

Client ID:

Instrument: nt14.i

Sample Info: SJD0305-CCV2

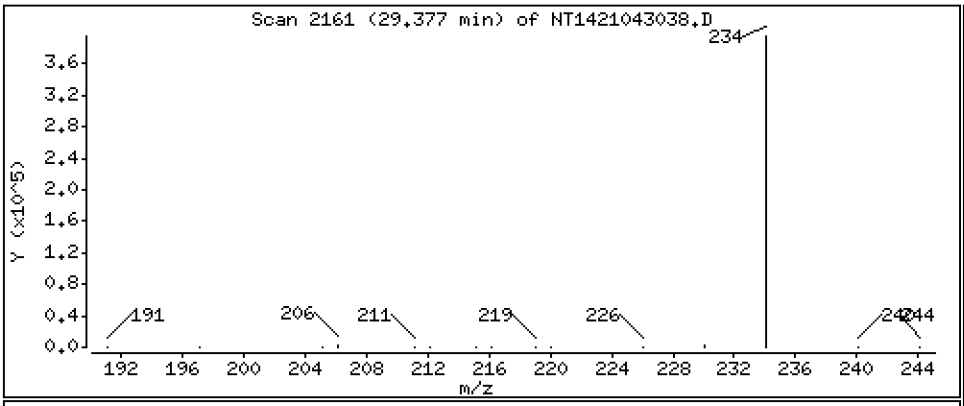
Operator: VTS

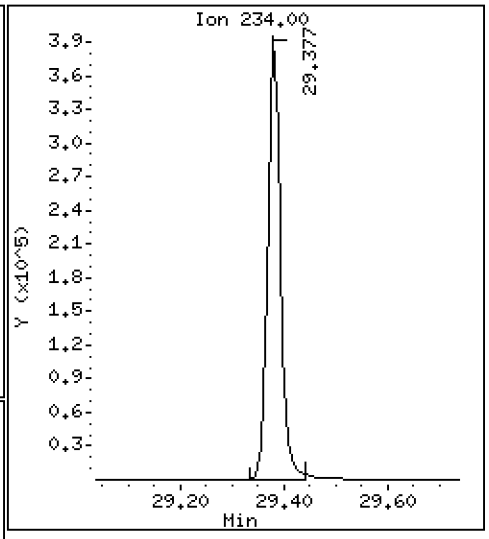
Column phase: Rxi-17Sil MS

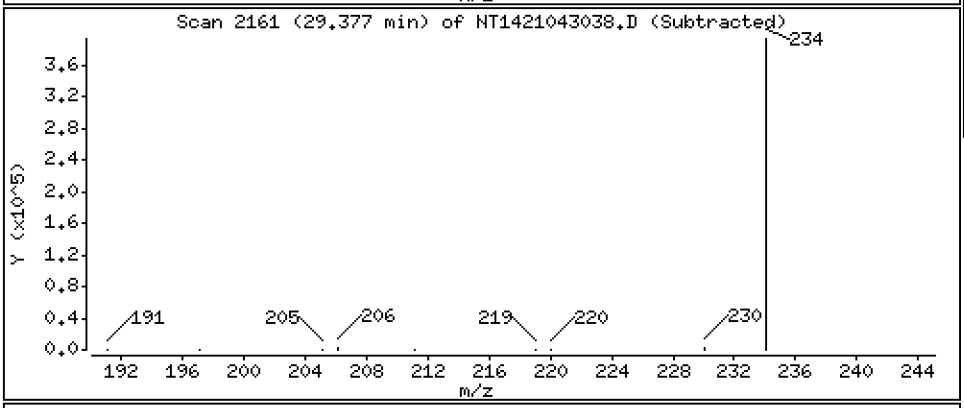
Column diameter: 0.25

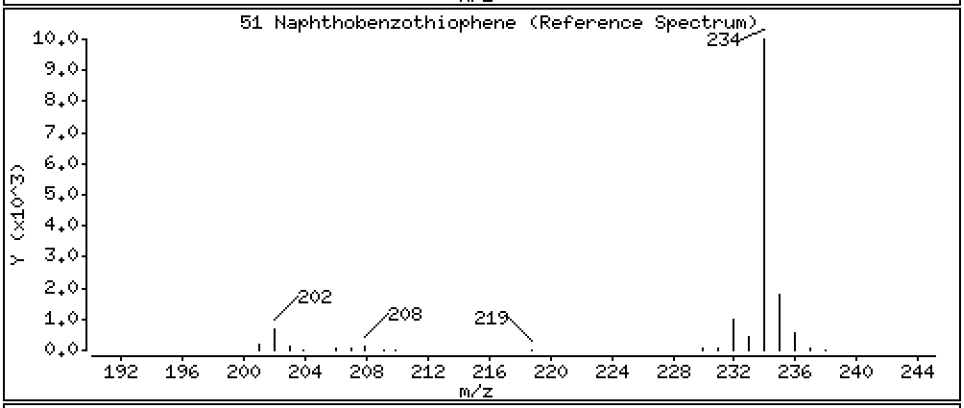
51 Naphthobenzothiophene

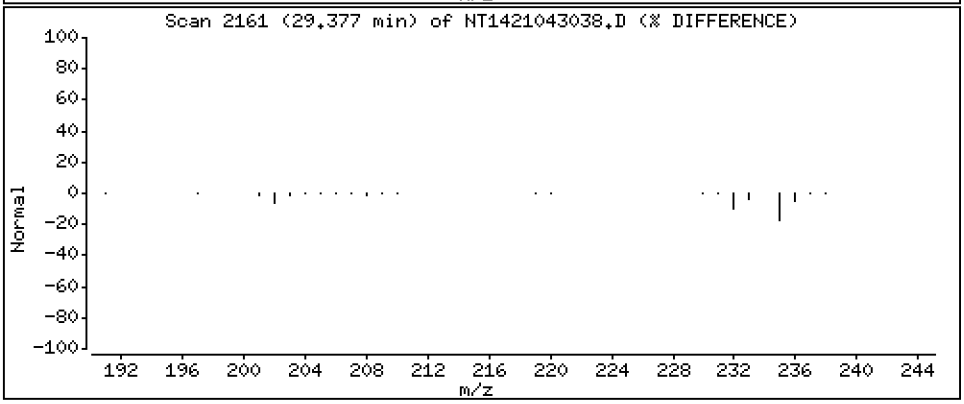
Concentration: 2.659 ug/mL











ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt14.i\20210430.b\SIM.b\NT1421043038.D
Lab Smp Id: SJD0305-CCV2
Inj Date : 01-MAY-2021 13:10
Operator : VTS Inst ID: nt14.i
Smp Info : SJD0305-CCV2
Misc Info :
Comment : 1ul Injection
Method : \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Meth Date : 06-May-2021 14:57 yev Quant Type: ISTD
Cal Date : 30-APR-2021 13:32 Cal File: NT1421043009.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TARGETS.sub
Target Version: 4.14
Processing Host: ORGDATA102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
	1 trans-Decalin	138	Compound Not Detected.					
	2 cis-Decalin	138	Compound Not Detected.					
$	6 Naphthalene-d8	136	Compound Not Detected.					
	7 Naphthalene	128	Compound Not Detected.					
	12 Benzo(b)thiophene	134	Compound Not Detected.					
	16 2-Methylnaphthalene	141	13.671	13.680	(0.728)	493390	2.83546	2.835
	17 1-methylnaphthalene	141	14.121	14.131	(0.752)	465264	2.82197	2.822
	18 Biphenyl	154	Compound Not Detected.					
	19 2,6-Dimethylnaphthalene	156	15.385	15.394	(0.820)	506718	2.95701	2.957
	20 Acenaphthylene	152	Compound Not Detected.					
$	21 Acenaphthene-d10	164	17.242	17.241	(0.918)	460617	2.94265	2.943(R)
	22 Acenaphthene	153	Compound Not Detected.					
	23 Dibenzofuran	168	Compound Not Detected.					
	24 1,6,7-Trimethylnaphthalene	170	17.957	17.966	(0.956)	454928	3.02498	3.025
*	25 Fluorene-d10	176	18.773	18.774	(1.000)	555486	2.00000	
	26 Fluorene	166	Compound Not Detected.					
	30 Dibenzothiophene	184	Compound Not Detected.					
$	35 Phenanthrene-d10	188	22.095	22.102	(0.995)	684098	2.57260	2.573(R)
	36 Phenanthrene	178	Compound Not Detected.					
*	250 Anthracene-d10	188	22.216	22.216	(1.000)	492082	2.00000	
	37 Anthracene	178	Compound Not Detected.					
	42 Carbazole	167	Compound Not Detected.					
	43 1-Methylphenanthrene	192	24.008	24.015	(1.081)	496089	2.75222	2.752
	44 Fluoranthene	202	Compound Not Detected.					
	46 Pyrene	202	Compound Not Detected.					
	51 Naphthobenzothiophene	234	29.377	29.385	(1.322)	707852	2.65860	2.659
	55 Benzo(a)anthracene	228	Compound Not Detected.					
$	56 Chrysene-d12	240	30.085	30.087	(0.910)	530016	2.60777	2.608(R)
	57 Chrysene	228	Compound Not Detected.					
	62 Benzo(b)fluoranthene	252	Compound Not Detected.					
	63 Benzo(k)fluoranthene	252	Compound Not Detected.					
	293 Benzo(j)fluoranthene	252	Compound Not Detected.					
	246 Total Benzofluoranthenes	252	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
* 251 Benzo(e)pyrene-d12	264	33.048	33.037	(1.000)	559351	2.00000	
64 Benzo(e)pyrene	252	Compound Not Detected.					
66 Benzo(a)pyrene	252	Compound Not Detected.					
$ 67 Perylene-d12	264	Compound Not Detected.					
68 Perylene	252	Compound Not Detected.					
69 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
70 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
74 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt14.i
Lab File ID: NT1421043038.D
Lab Smp Id: SJD0305-CCV2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt14.i\20210430.b\SIM.b\ALKYLRANGES.m
Misc Info:

Calibration Date: 01-MAY-2021
Calibration Time: 01:56
Level:
Sample Type:

Test Mode:
Use Last Continuing Calibrator.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	615800	307900	1231600	555486	-9.79
250 Anthracene-d10	563384	281692	1126768	492082	-12.66
251 Benzo(e)pyrene-d1	606671	303336	1213342	559351	-7.80

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
25 Fluorene-d10	18.77	18.27	19.27	18.77	-0.00
250 Anthracene-d10	22.22	21.72	22.72	22.22	-0.00
251 Benzo(e)pyrene-d1	33.04	32.54	33.54	33.05	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SIH0304	Instrument:	NT11
		Calibration:	DH00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
PAH 250	SIH0304-CAL4	NT1120082702.D	NA	08/27/20 12:35
PAH 1000	SIH0304-CAL6	NT1120082703.D	NA	08/27/20 13:07
PAH 10	SIH0304-CAL1	NT1120082704.D	NA	08/27/20 13:38
PAH 500	SIH0304-CAL5	NT1120082705.D	NA	08/27/20 14:08
PAH 50	SIH0304-CAL2	NT1120082706.D	NA	08/27/20 14:38
PAH 100	SIH0304-CAL3	NT1120082707.D	NA	08/27/20 15:08
PAH 250 SCV	SIH0304-SCV1	NT1120082708.D	NA	08/27/20 15:38
Initial Cal Blank	SIH0304-ICB1	NT1120082709.D	NA	08/27/20 16:09

Printed: 8/28/2020 9:29:05AM

ANALYSIS SEQUENCE

SIH0304

Instrument: NT11 Element Column ID: I005862
Calibration ID: DH00073 Tune File: 190904.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SIH0304-TUN1	DFTPP	QC		1	I007631		
SIH0304-CAL4	PAH 250	QC		2	I004578	I002616	
SIH0304-CAL6	PAH 1000	QC		3	I004580	I002616	
SIH0304-CAL1	PAH 10	QC		4	I004575	I002616	
SIH0304-CAL5	PAH 500	QC		5	I004579	I002616	
SIH0304-CAL2	PAH 50	QC		6	I004576	I002616	
SIH0304-CAL3	PAH 100	QC		7	I004577	I002616	
SIH0304-SCV1	PAH 250 SCV	QC		8	I004581	I002616	
SIH0304-ICB1	Initial Cal Blank	QC		9	I007632	I002616	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

	Time	Filename	LabID	ClientId	DF									
1	1220	NT1120082701.D	SIH0304-TUN1		1	|NO ISTDS FOUND||								
2	1235	NT1120082702.D	SIH0304-CAL4		1	6.81	215332	9.81	102217	12.48	170387	17.21	116138	19.98	139038
3	1307	NT1120082703.D	SIH0304-CAL6		1	6.81	211963	9.81	104596	12.48	173851	17.21	118274	19.98	139375
4	1338	NT1120082704.D	SIH0304-CAL1		1	6.80	218979	9.81	96342	12.48	152977	17.21	94808	19.98	108221
5	1408	NT1120082705.D	SIH0304-CAL5		1	6.80	205773	9.81	98118	12.48	160808	17.21	104617	19.98	121661
6	1438	NT1120082706.D	SIH0304-CAL2		1	6.80	206491	9.81	90319	12.48	134229	17.21	84619	19.98	93566
7	1508	NT1120082707.D	SIH0304-CAL3		1	6.80	198254	9.81	88696	12.48	133333	17.21	84043	19.98	92362
8	1538	NT1120082708.D	SIH0304-SCV1		1	6.80	202035	9.81	90189	12.48	142829	17.22	104063	19.98	119273
9	1609	NT1120082709.D	SIH0304-ICB1		1	6.80	216694	9.81	94656	12.48	145070	17.22	97049	19.98	107633

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20200827.b

Instrument: nt11.i Date: 27-AUG-2020

Time	Filename	LabID	DF	Manually Integrated Compounds
1220	NT1120082701.D	SIH0304-TUN1	1	NO MANUAL INTEGRATION
1235	NT1120082702.D	SIH0304-CAL4	1	NO MANUAL INTEGRATION
1307	NT1120082703.D	SIH0304-CAL6	1	NO MANUAL INTEGRATION
1338	NT1120082704.D	SIH0304-CAL1	1	Dibenzo(a,h)anthracene-d14,
1408	NT1120082705.D	SIH0304-CAL5	1	NO MANUAL INTEGRATION
1438	NT1120082706.D	SIH0304-CAL2	1	NO MANUAL INTEGRATION
1508	NT1120082707.D	SIH0304-CAL3	1	NO MANUAL INTEGRATION
1538	NT1120082708.D	SIH0304-SCV1	1	NO MANUAL INTEGRATION
1609	NT1120082709.D	SIH0304-ICB1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Aug-2020 09:31

NT1120082701.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082702.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082703.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082704.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082705.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082706.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082707.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082708.D	Data Locked	van, 28-Aug-2020 09:31
NT1120082709.D	Data Locked	van, 28-Aug-2020 09:31

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0305	Instrument:	NT14
		Calibration:	EE00001

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SJD0305-TUN1	NT1421043001.D	NA	04/30/21 07:42
PAH 2.5	SJD0305-CAL5	NT1421043002.D	NA	04/30/21 07:56
PAH 10.0	SJD0305-CAL7	NT1421043003.D	NA	04/30/21 08:43
PAH 5.0	SJD0305-CAL6	NT1421043005.D	NA	04/30/21 10:19
PAH 0.25	SJD0305-CAL2	NT1421043006.D	NA	04/30/21 11:07
PAH 1.0	SJD0305-CAL4	NT1421043007.D	NA	04/30/21 11:55
PAH 0.5	SJD0305-CAL3	NT1421043008.D	NA	04/30/21 12:43
PAH 0.1	SJD0305-CAL1	NT1421043009.D	NA	04/30/21 13:32
Secondary Cal Check	SJD0305-SCV1	NT1421043010.D	NA	04/30/21 14:41
Initial Cal Blank	SJD0305-ICB1	NT1421043011.D	NA	04/30/21 15:29

Printed: 5/1/2021 9:45:57AM

ANALYSIS SEQUENCE

SJD0305

Instrument: NT14 Element Column ID: J008815
Calibration ID: EE00001 Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0305-TUN1	MS Tune	QC		1	I007631		
SJD0305-CAL5	PAH 2.5	QC		2	J004700	J004384	
SJD0305-CAL7	PAH 10.0	QC		3	J004701	J004384	
SJD0305-CAL6	PAH 5.0	QC		4	J004702	J004384	
SJD0305-CAL2	PAH 0.25	QC		5	J004705	J004384	
SJD0305-CAL4	PAH 1.0	QC		6	J004703	J004384	
SJD0305-CAL3	PAH 0.5	QC		7	J004704	J004384	
SJD0305-CAL1	PAH 0.1	QC		8	J004706	J004384	
SJD0305-SCV1	Secondary Cal Check	QC		9	J004707	J004384	
SJD0305-ICB1	Initial Cal Blank	QC		10	J004708	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

	Time	Filename	LabID	ClientId	DF						
1	0742	NT1421043001.D	SJD0305-TUN1		1	|NO ISTDS FOUND||					
2	0756	NT1421043002.D	SJD0305-CAL5		1	|18.78	420456||22.22	381033||33.05	370998|		
3	0843	NT1421043003.D	SJD0305-CAL7		1	|18.78	463680||22.22	358366||33.05	363264|		
4	0931	NT1421043004.D	SJD0305-CAL1		1	|18.78	393878||22.22	335095||33.05	358059|		
5	1019	NT1421043005.D	SJD0305-CAL6		1	|18.78	459220||22.22	341294||33.05	348573|		
6	1107	NT1421043006.D	SJD0305-CAL2		1	|18.77	514907||22.22	378499||33.05	385845|		
7	1155	NT1421043007.D	SJD0305-CAL4		1	|18.78	445719||22.22	328813||33.05	341443|		
8	1243	NT1421043008.D	SJD0305-CAL3		1	|18.78	369261||22.22	315516||33.05	324493|		
9	1332	NT1421043009.D	SJD0305-CAL1		1	|18.78	472157||22.22	325856||33.05	333740|		
10	1441	NT1421043010.D	SJD0305-SCV1		1	|18.78	351020||22.23	309177||33.05	328565|		
11	1529	NT1421043011.D	SJD0305-ICB1		1	|18.77	376278||22.23	322067||33.05	328767|		

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b

Instrument: nt14.i Date: 30-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0742	NT1421043001.D	SJD0305-TUN1	1	NO MANUAL INTEGRATION
0756	NT1421043002.D	SJD0305-CAL5	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
0843	NT1421043003.D	SJD0305-CAL7	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
0931	NT1421043004.D	SJD0305-CAL1	1	Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthene
1019	NT1421043005.D	SJD0305-CAL6	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Perylene-d12,
1107	NT1421043006.D	SJD0305-CAL2	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Benzo(j)fluoranthene,
1155	NT1421043007.D	SJD0305-CAL4	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Perylene, Total Benzofluoranthenes,
1243	NT1421043008.D	SJD0305-CAL3	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1332	NT1421043009.D	SJD0305-CAL1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
1441	NT1421043010.D	SJD0305-SCV1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene, Perylene, Total Benzofluoranthenes, Benzo(Chrysene-d12, Perylene-d12,
1529	NT1421043011.D	SJD0305-ICB1	1	Chrysene-d12, Perylene-d12,

Security Status Report

Date: 01-May-2021 09:39

NT1421043001.D	Data Locked	van, 01-May-2021 09:39
NT1421043002.D	Data Locked	van, 01-May-2021 09:39
NT1421043003.D	Data Locked	van, 01-May-2021 09:39
NT1421043004.D	Data Locked	van, 01-May-2021 09:39
NT1421043005.D	Data Locked	van, 01-May-2021 09:39
NT1421043006.D	Data Locked	van, 01-May-2021 09:39
NT1421043007.D	Data Locked	van, 01-May-2021 09:39
NT1421043008.D	Data Locked	van, 01-May-2021 09:39
NT1421043009.D	Data Locked	van, 01-May-2021 09:39
NT1421043010.D	Data Locked	van, 01-May-2021 09:39
NT1421043011.D	Data Locked	van, 01-May-2021 09:39

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0330	Instrument:	NT11
		Calibration:	DH00073

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SJD0330-ICV1	NT1121042302.D	NA	04/23/21 13:25
LCV 10	SJD0330-LCV1	NT1121042303.D	NA	04/23/21 13:57
ZZZZZ	21D0152-01RE1	NT1121042309.D	Solid	04/23/21 17:10
Calibration Check	SJD0330-CCV1	NT1121042310.D	NA	04/23/21 17:42

Printed: 4/24/2021 8:47:02AM

ANALYSIS SEQUENCE

SJD0330

Instrument: NT11 Element Column ID:
Calibration ID: DH00073 Tune File:
EM Voltage:

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0330-TUN1	DFTPP	QC		1	I007631		
SJD0330-ICV1	Initial Cal Check	QC		2	I009255	J002777	
SJD0330-LCV1	LCV 10	QC		3	I010630	J002777	
BJD0500-BLK1	Blank	QC		4		J002777	
BJD0500-BS1	LCS	QC		5		J002777	
BJD0500-BSD1	LCS Dup	QC		6		J002777	
21D0182-01	SG-FB-2104151048	270E-SIM PAH Low (0.01ug/L or 0.5ug/k	A 01	7		J002777	Version
21D0182-02	SG-RB-2104151020	270E-SIM PAH Low (0.01ug/L or 0.5ug/k	A 01	8		J002777	Version
21D0152-01RE1	USMPDI-005SG-210412	270E-SIM PAH Low (0.01ug/L or 0.5ug/k	A 02	9		J002777	Version
SJD0330-CCV1	Calibration Check	QC		10	I009255	J002777	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210423.b

	Time	Filename	LabID	ClientId	DF									
1	1308	NT1121042301.D	SJD0330-TUN1		1	NO ISTDS FOUND								
2	1325	NT1121042302.D	SJD0330-ICV1		1	6.77	124324	9.76	71130	12.43	109059	17.16	79646	19.89	94327
3	1357	NT1121042303.D	SJD0330-LCV1		1	6.77	124300	9.76	62112	12.43	94000	17.16	61936	19.89	69033
4	1429	NT1121042304.D	BJD0500-BLK1		1	6.77	123197	9.76	64399	12.43	99339	17.16	67566	19.89	72696
5	1501	NT1121042305.D	BJD0500-BS1		1	6.77	120123	9.76	65923	12.43	100536	17.16	71132	19.89	79229
6	1534	NT1121042306.D	BJD0500-BSD1		1	6.77	122669	9.76	66285	12.43	102693	17.16	71033	19.89	76513
7	1606	NT1121042307.D	21D0182-01		1	6.77	122242	9.76	64042	12.43	96999	17.16	63417	19.89	64361
8	1638	NT1121042308.D	21D0182-02		1	6.77	117238	9.76	63594	12.43	95064	17.16	62067	19.89	61410
9	1710	NT1121042309.D	21D0152-01RE1		500	6.77	113731	9.76	58229	12.43	93856	17.16	66990	19.89	71799
10	1742	NT1121042310.D	SJD0330-CCV1		1	6.77	116322	9.76	63110	12.43	94602	17.16	63265	19.89	66521

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20210423.b

Instrument: nt11.i Date: 23-APR-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
1308	NT1121042301.D	SJD0330-TUN1	1	NO MANUAL INTEGRATION
1325	NT1121042302.D	SJD0330-ICV1	1	NO MANUAL INTEGRATION
1357	NT1121042303.D	SJD0330-LCV1	1	Acenaphthylene, Aceraphthene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, Carbazole, Biphenyl,
1429	NT1121042304.D	BJD0500-BLK1	1	Naphthalene, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl,
1501	NT1121042305.D	BJD0500-BS1	1	NO MANUAL INTEGRATION
1534	NT1121042306.D	BJD0500-BSD1	1	NO MANUAL INTEGRATION
1606	NT1121042307.D	21D0182-01	1	Acenaphthene, Fluorene, Phenanthrene, Carbazole,
1638	NT1121042308.D	21D0182-02	1	Acenaphthene, Fluorene, Phenanthrene, 2,3,5-Trimethylnaphthalene,
1710	NT1121042309.D	21D0152-01RE1	500	Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, 1-Methylnaphthalene, Carbazole, Biphenyl, 2-Methylnaphthalene-d10,
1742	NT1121042310.D	SJD0330-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 24-Apr-2021 08:46

NT1121042301.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042302.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042303.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042304.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042305.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042306.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042307.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042308.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042309.D	Data Locked	van, 24-Apr-2021 08:46
NT1121042310.D	Data Locked	van, 24-Apr-2021 08:46

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: 5SD0306/330
Analyst: VB
Date: 4.22.2021
4.23.2021

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
21D022-03, 21D0152-01	10	DCM	490	50	50	DCM	450	500
21D022-04, 21D0152-02	25	DCM	475	20				

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0345	Instrument:	NT14
		Calibration:	EE00001

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Initial Cal Check	SJD0345-ICV1	NT1421043024ICV.D	NA	05/01/21 01:56
ZZZZZ	BJD0382-BLK1	NT1421043025.D	Solid	05/01/21 02:44
ZZZZZ	BJD0382-BS1	NT1421043026.D	Solid	05/01/21 03:32
ZZZZZ	21D0152-01	NT1421043027.D	Solid	05/01/21 04:21
ZZZZZ	21D0152-01RE1	NT1421043028.D	Solid	05/01/21 05:09
ZZZZZ	21D0152-02	NT1421043031.D	Solid	05/01/21 07:34
ZZZZZ	21D0152-03	NT1421043032.D	Solid	05/01/21 08:22
Blank	BJD0501-BLK1	NT1421043033.D	Water	05/01/21 09:10
LCS	BJD0501-BS1	NT1421043034.D	Water	05/01/21 09:58
LCS Dup	BJD0501-BSD1	NT1421043035.D	Water	05/01/21 10:46
SG-FB-2104151048	21D0182-01	NT1421043036.D	Water	05/01/21 11:34
SG-RB-2104151020	21D0182-02	NT1421043037.D	Water	05/01/21 12:22
Calibration Check	SJD0345-CCV1	NT1421043038.D	NA	05/01/21 13:10

Printed: 5/1/2021 2:11:44PM

ANALYSIS SEQUENCE

SJD0345

Instrument: NT14 Element Column ID: J008815
Calibration ID: UNASSIGNED Tune File: 200104.U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0345-ICV1	Initial Cal Check	QC		1	J004383	J004384	
BJD0382-BLK1	Blank	QC		2		J004384	
BJD0382-BS1	LCS	QC		3		J004384	
21D0152-01	USMPDI-005SG-210412	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	4		J004384	
21D0152-01RE1	USMPDI-005SG-210412	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	5		J004384	Added 5/1/2021 by VTS
BJD0382-MS1	Matrix Spike	QC		6		J004384	
BJD0382-MSD1	Matrix Spike Dup	QC		7		J004384	
21D0152-02	USMPDI-017SG-210412	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	8		J004384	
21D0152-03	USMPDI-020SG-210412	8270E-SIM Alkyl PAH (Parents) Dual Scan	A 03	9		J004384	
BJD0501-BLK1	Blank	QC		10		J004384	
BJD0501-BS1	LCS	QC		11		J004384	
BJD0501-BSD1	LCS Dup	QC		12		J004384	
21D0182-01	SG-FB-2104151048	8270E-SIM Alkyl PAH (Parents) Dual Scan	B 01	13		J004384	
21D0182-02	SG-RB-2104151020	8270E-SIM Alkyl PAH (Parents) Dual Scan	B 01	14		J004384	
SJD0345-CCV1	Calibration Check	QC		15	J004383	J004384	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430B.b

	Time	Filename	LabID	ClientId	DF							
1	0156	NT1421043024ICV.D	SJD0345-ICV1		1	18.77	526731	22.21	481292	33.05	486825
2	0244	NT1421043025.D	BJD0382-BLK1		1	18.77	522884	22.21	480457	33.05	485065
3	0332	NT1421043026.D	BJD0382-BS1		1	18.77	535078	22.21	485063	33.05	493267
4	0421	NT1421043027.D	21D0152-01		5	18.77	430888	22.23	402792	33.05	521739
5	0509	NT1421043028.D	21D0152-01RE1		100	18.77	502858	22.21	453026	33.05	484546
6	0557	NT1421043029.D	BJD0382-MS1		5	18.77	459192	22.23	426053	33.05	532985
7	0645	NT1421043030.D	BJD0382-MSD1		5	18.77	430604	22.23	412105	33.05	512755
8	0734	NT1421043031.D	21D0152-02		1	18.77	459454	22.21	418228	33.05	491010
9	0822	NT1421043032.D	21D0152-03		1	18.77	472130	22.21	430204	33.05	515001
10	0910	NT1421043033.D	BJD0501-BLK1		1	18.77	536706	22.21	481199	33.05	454674
11	0958	NT1421043034.D	BJD0501-BS1		1	18.77	504099	22.21	452959	33.05	438897
12	1046	NT1421043035.D	BJD0501-BSD1		1	18.77	490853	22.21	433458	33.05	417532
13	1134	NT1421043036.D	21D0182-01		1	18.77	509426	22.21	443976	33.05	430088
14	1222	NT1421043037.D	21D0182-02		1	18.77	527542	22.21	460304	33.05	419029
15	1310	NT1421043038.D	SJD0345-CCV1		1	18.77	470584	22.21	406977	33.05	456524

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430B.b

Instrument: nt14.i Date: 01-MAY-2021

Time	Filename	LabID	DF	Manually Integrated Compounds
0156	NT1421043024ICV.D	SJD0345-ICV1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene
0244	NT1421043025.D	BJD0382-BLK1	1	2-Methylnaphthalene, Anthracene,
0332	NT1421043026.D	BJD0382-BS1	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes
0421	NT1421043027.D	21D0152-01	5	Benzo(k)fluoranthene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes, Benzo(j)fluoranthene,
0509	NT1421043028.D	21D0152-01RE1	100	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Phenanthrene-d10, Perylene-d12,
0557	NT1421043029.D	BJD0382-MS1	5	Benzo(k)fluoranthene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes, Benzo(j)fluoranthene, Acenaphthene-d10,
0645	NT1421043030.D	BJD0382-MSD1	5	Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes, Benzo(j)fluoranth
0734	NT1421043031.D	21D0152-02	1	Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzothiophene, 2,6-Dimethylnaphthalene, Total Benzofluoranthenes,
0822	NT1421043032.D	21D0152-03	1	2-Methylnaphthalene, Carbazole, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a, Benzo(g,h,i)perylene, Dibenzothiophene, 2,6-Dimethylnaphthalene, Naphthobenzothiophene, Total Benzofluoran
0910	NT1421043033.D	BJD0501-BLK1	1	NO MANUAL INTEGRATION
0958	NT1421043034.D	BJD0501-BS1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthen
1046	NT1421043035.D	BJD0501-BSD1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Total Benzofluoranthen
1134	NT1421043036.D	21D0182-01	1	NO MANUAL INTEGRATION
1222	NT1421043037.D	21D0182-02	1	Perylene-d12,
1310	NT1421043038.D	SJD0345-CCV1	1	Benzo(k)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, Benzo(g,h,i)perylene, Perylene, Total Be Benzo(j)fluoranthene,

Security Status Report

Date: 01-May-2021 14:06

NT1421043024ICV.D	Data Locked	van, 01-May-2021 14:06
NT1421043025.D	Data Locked	van, 01-May-2021 14:06
NT1421043026.D	Data Locked	van, 01-May-2021 14:06
NT1421043027.D	Data Locked	van, 01-May-2021 14:06
NT1421043028.D	Data Locked	van, 01-May-2021 14:06
NT1421043029.D	Data Locked	van, 01-May-2021 14:06
NT1421043030.D	Data Locked	van, 01-May-2021 14:06
NT1421043031.D	Data Locked	van, 01-May-2021 14:06
NT1421043032.D	Data Locked	van, 01-May-2021 14:06
NT1421043033.D	Data Locked	van, 01-May-2021 14:06
NT1421043034.D	Data Locked	van, 01-May-2021 14:06
NT1421043035.D	Data Locked	van, 01-May-2021 14:06
NT1421043036.D	Data Locked	van, 01-May-2021 14:06
NT1421043037.D	Data Locked	van, 01-May-2021 14:06
NT1421043038.D	Data Locked	van, 01-May-2021 14:06

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SJD034S
Analyst: LD Date: 4/30/2021

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
21D0152-01, MS, MSD	100	DCM	400	5				
					25	475/DCM	475	100

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0347	Instrument:	NT14
		Calibration:	EE00019

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	BJD0382-BLK2	NT1421043025S.D	Solid	05/01/21 02:44
ZZZZZ	21D0152-01	NT1421043027S.D	Solid	05/01/21 04:21
ZZZZZ	21D0152-02	NT1421043031S.D	Solid	05/01/21 07:34
ZZZZZ	21D0152-03	NT1421043032S.D	Solid	05/01/21 08:22
Blank	BJD0501-BLK2	NT1421043033S.D	Water	05/01/21 09:10
SG-FB-2104151048	21D0182-01	NT1421043036S.D	Water	05/01/21 11:34
SG-RB-2104151020	21D0182-02	NT1421043037S.D	Water	05/01/21 12:22

Printed: 5/7/2021 9:37:17AM

ANALYSIS SEQUENCE

SJD0347

Instrument: NT14 Element Column ID: I008815
Calibration ID: EE00019 Tune File: 200104U
EM Voltage: 2000

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SJD0347-ICV1	Initial Cal Check	QC		1	J004700	J004384	
BJD0382-BLK2	Blank	QC		2			
21D0152-01	USMPDI-005SG-210412	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	3			
21D0152-02	USMPDI-017SG-210412	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	4			
21D0152-03	USMPDI-020SG-210412	8270E-SIM Alkyl PAH (Range) Dual Scan	A 03	5			
BJD0501-BLK2	Blank	QC		6			
21D0182-01	SG-FB-2104151048	8270E-SIM Alkyl PAH (Range) Dual Scan	B 01	7			
21D0182-02	SG-RB-2104151020	8270E-SIM Alkyl PAH (Range) Dual Scan	B 01	8			

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b\SIM.b

	Time	Filename	LabID	ClientId	DF						
1	0156	NT1421043024S.D	SJD0347-ICV1		1	18.77	615800	22.22	563384	33.04	606671
2	0244	NT1421043025S.D	BJD0382-BLK2		1	18.77	618380	22.22	567812	33.04	591155
3	0332	NT1421043026S.D	BJD0382-BS1		1	18.76	634642	22.22	581529	33.04	585396
4	0421	NT1421043027S.D	21D0152-01		5	18.77	507900	22.22	482820	33.05	618182
5	0509	NT1421043028S.D	21D0152-01RE1		100	18.77	586781	22.22	539697	33.05	577383
6	0557	NT1421043029S.D	BJD0382-MS1		5	18.77	541386	22.22	504881	33.05	647419
7	0645	NT1421043030S.D	BJD0382-MSD1		5	18.77	517042	22.22	478961	33.05	628300
8	0734	NT1421043031S.D	21D0152-02		1	18.77	538534	22.22	499369	33.05	603712
9	0822	NT1421043032S.D	21D0152-03		1	18.77	555926	22.22	518340	33.05	627885
10	0910	NT1421043033S.D	BJD0501-BLK2		1	18.76	632635	22.21	566991	33.04	557788
11	0958	NT1421043034S.D	BJD0501-BS1		1	18.76	587572	22.21	536925	33.04	525225
12	1046	NT1421043035S.D	BJD0501-BSD1		1	18.76	579660	22.21	516864	33.04	511957
13	1134	NT1421043036S.D	21D0182-01		1	18.76	600761	22.21	531825	33.04	523336
14	1222	NT1421043037S.D	21D0182-02		1	18.76	617189	22.21	548317	33.04	507165

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt14.i\20210430.b\SIM.b

ARI Job No.: SJD0 Method: SIM.b\ALKYLRANGES.m Instrument: nt14.i Date: 01-MAY-2021

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0156	NT1421043024S.D	SJD0347-ICV1		1	NO MANUAL INTEGRATION
0244	NT1421043025S.D	BJD0382-BLK2		1	NO MANUAL INTEGRATION
0332	NT1421043026S.D	BJD0382-BS1		1	NO MANUAL INTEGRATION
0421	NT1421043027S.D	21D0152-01		5	C1-Decalin, C2-Decalin, C3-Decalin, C4-Decalin, C1-Naphthalenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr
0509	NT1421043028S.D	21D0152-01RE1		100	NO MANUAL INTEGRATION
0557	NT1421043029S.D	BJD0382-MS1		5	NO MANUAL INTEGRATION
0645	NT1421043030S.D	BJD0382-MSD1		5	NO MANUAL INTEGRATION
0734	NT1421043031S.D	21D0152-02		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr
0822	NT1421043032S.D	21D0152-03		1	C1-Decalin, C2-Decalin, C3-Decalin, C1-Naphthalenes, C4-Naphthobenzothiophenes, C4-Fluoranthenes/Pyrenes, C2-Naphthalenes, C3-Naphthalenes, C4-Naphthalenes, C1-Benzothiophenes, C2-Benzothiophenes, C3_Benzothiophenes, C1-Fluorenes, C2-Fluorenes, C3-Fluorenes, C1-Dibenzothiophenes, C2-Dibenzothiophenes, C3-Dibenzothiophenes, C1-Phenanthrenes/Anthr
0910	NT1421043033S.D	BJD0501-BLK2		1	NO MANUAL INTEGRATION
0958	NT1421043034S.D	BJD0501-BS1		1	NO MANUAL INTEGRATION
1046	NT1421043035S.D	BJD0501-BSD1		1	NO MANUAL INTEGRATION
1134	NT1421043036S.D	21D0182-01		1	C1-Naphthalenes, C3-Naphthalenes,
1222	NT1421043037S.D	21D0182-02		1	C1-Naphthalenes, C3-Naphthalenes,

Security Status Report

Date: 07-May-2021 11:24

NT1421043024S.D	Data Locked	yev, 07-
NT1421043025S.D	Data Locked	yev, 07-
NT1421043026S.D	Data Locked	yev, 07-
NT1421043027S.D	Data Locked	yev, 07-
NT1421043028S.D	Data Locked	yev, 07-
NT1421043029S.D	Data Locked	yev, 07-
NT1421043030S.D	Data Locked	yev, 07-
NT1421043031S.D	Data Locked	yev, 07-
NT1421043032S.D	Data Locked	yev, 07-
NT1421043033S.D	Data Locked	yev, 07-
NT1421043034S.D	Data Locked	yev, 07-
NT1421043035S.D	Data Locked	yev, 07-
NT1421043036S.D	Data Locked	yev, 07-
NT1421043037S.D	Data Locked	yev, 07-

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0305	Instrument:	NT14
Calibration:	EE00001	Calibration Date:	04/30/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0305-SCV1 (Solid)			Lab File ID: NT1421043010.D				Analyzed: 04/30/21 14:41	
Naphthalene-d8	2.5000	119	80 - 120	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	121	80 - 120	17.252	17.24414	0.0079	N/A	
Phenanthrene-d10	2.5000	107	80 - 120	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	113	80 - 120	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	100	80 - 120	33.384	33.38629	-0.0023	N/A	
SJD0305-ICB1 (Solid)			Lab File ID: NT1421043011.D				Analyzed: 04/30/21 15:29	
Naphthalene-d8	2.5000	120	30 - 160	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	121	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	112	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	116	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	91.5	30 - 160	33.384	33.38629	-0.0023	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 21D0182
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0345
Instrument: NT14
Calibration: EE00001
Calibration Date: 04/30/2021

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SJD0345-ICV1 (Water)			Lab File ID: NT1421043024ICV.D			Analyzed: 05/01/21 01:56		
Naphthalene-d8	2.5000	111	0 - 200	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	117	0 - 200	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	98.5	0 - 200	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	110	0 - 200	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	106	0 - 200	33.384	33.38629	-0.0023	N/A	
BJD0501-BLK1 (Water)			Lab File ID: NT1421043033.D			Analyzed: 05/01/21 09:10		
Naphthalene-d8	3.0000	64.8	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	3.0000	73.4	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	3.0000	70.5	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	3.0000	73.6	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	3.0000	61.8	30 - 160	33.384	33.38629	-0.0023	N/A	
BJD0501-BS1 (Water)			Lab File ID: NT1421043034.D			Analyzed: 05/01/21 09:58		
Naphthalene-d8	3.0000	71.0	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	3.0000	78.4	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	3.0000	75.9	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	3.0000	79.9	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	3.0000	74.8	30 - 160	33.384	33.38629	-0.0023	N/A	
BJD0501-BSD1 (Water)			Lab File ID: NT1421043035.D			Analyzed: 05/01/21 10:46		
Naphthalene-d8	3.0000	75.0	30 - 160	11.765	11.776	-0.0110	N/A	
Acenaphthene-d10	3.0000	83.1	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	3.0000	78.0	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	3.0000	82.6	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	3.0000	64.8	30 - 160	33.384	33.38629	-0.0023	N/A	
21D0182-01 (Water)			Lab File ID: NT1421043036.D			Analyzed: 05/01/21 11:34		
Naphthalene-d8	3.0000	67.1	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	3.0000	73.5	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	3.0000	73.6	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	3.0000	75.6	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	3.0000	56.1	30 - 160	33.384	33.38629	-0.0023	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0345	Instrument:	NT14
Calibration:	EE00001	Calibration Date:	04/30/2021

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
21D0182-02 (Water)			Lab File ID: NT1421043037.D			Analyzed: 05/01/21 12:22		
Naphthalene-d8	3.0000	65.6	30 - 160	11.766	11.776	-0.0100	N/A	
Acenaphthene-d10	3.0000	75.4	30 - 160	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	3.0000	73.7	30 - 160	22.104	22.102	0.0020	N/A	
Chrysene-d12	3.0000	78.2	30 - 160	30.095	30.08914	0.0059	N/A	
Perylene-d12	3.0000	59.7	30 - 160	33.384	33.38629	-0.0023	N/A	
SJD0345-CCV1 (Water)			Lab File ID: NT1421043038.D			Analyzed: 05/01/21 13:10		
Naphthalene-d8	2.5000	117	0 - 200	11.776	11.776	0.0000	N/A	
Acenaphthene-d10	2.5000	120	0 - 200	17.241	17.24414	-0.0031	N/A	
Phenanthrene-d10	2.5000	105	0 - 200	22.104	22.102	0.0020	N/A	
Chrysene-d12	2.5000	106	0 - 200	30.095	30.08914	0.0059	N/A	
Perylene-d12	2.5000	98.6	0 - 200	33.384	33.38629	-0.0023	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0305	Instrument:	NT14
		Calibration:	EE00001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SJD0305-SCV1)		(Solid)		Lab File ID: NT1421043010.D				Analyzed: 04/30/21 14:41	
Fluorene-d10	351020	18.783	420456	18.781	83	50 - 200	0.002	+/-0.50	
Anthracene-d10	309177	22.225	381033	22.223	81	50 - 200	0.002	+/-0.50	
Benzo(e)pyrene-d12	328565	33.046	370998	33.05	89	50 - 200	-0.004	+/-0.50	
Initial Cal Blank (SJD0305-ICB1)		(Solid)		Lab File ID: NT1421043011.D				Analyzed: 04/30/21 15:29	
Fluorene-d10	376278	18.772	420456	18.781	89	50 - 200	-0.009	+/-0.50	
Anthracene-d10	322067	22.225	381033	22.223	85	50 - 200	0.002	+/-0.50	
Benzo(e)pyrene-d12	328767	33.046	370998	33.05	89	50 - 200	-0.004	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc.
SDG: 21D0182
Client: Anchor QEA, LLC
Project: Gasco Siltronic - US Moorings
Sequence: SJD0345
Instrument: NT14
Calibration: EE00001

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SJD0345-ICV1)		(Water)	Lab File ID: NT1421043024ICV.D				Analyzed: 05/01/21 01:56		
Fluorene-d10	526731	18.772	526731	18.772	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	481292	22.214	481292	22.214	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	486825	33.046	486825	33.046	100	50 - 200	0.000	+/-0.50	
Blank (BJD0501-BLK1)		(Water)	Lab File ID: NT1421043033.D				Analyzed: 05/01/21 09:10		
Fluorene-d10	536706	18.772	526731	18.772	102	50 - 200	0.000	+/-0.50	
Anthracene-d10	481199	22.214	481292	22.214	100	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	454674	33.046	486825	33.046	93	50 - 200	0.000	+/-0.50	
LCS (BJD0501-BS1)		(Water)	Lab File ID: NT1421043034.D				Analyzed: 05/01/21 09:58		
Fluorene-d10	504099	18.772	526731	18.772	96	50 - 200	0.000	+/-0.50	
Anthracene-d10	452959	22.214	481292	22.214	94	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	438897	33.046	486825	33.046	90	50 - 200	0.000	+/-0.50	
LCS Dup (BJD0501-BSD1)		(Water)	Lab File ID: NT1421043035.D				Analyzed: 05/01/21 10:46		
Fluorene-d10	490853	18.772	526731	18.772	93	50 - 200	0.000	+/-0.50	
Anthracene-d10	433458	22.214	481292	22.214	90	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	417532	33.046	486825	33.046	86	50 - 200	0.000	+/-0.50	
SG-FB-2104151048 (21D0182-01)		(Water)	Lab File ID: NT1421043036.D				Analyzed: 05/01/21 11:34		
Fluorene-d10	509426	18.772	526731	18.772	97	50 - 200	0.000	+/-0.50	
Anthracene-d10	443976	22.214	481292	22.214	92	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	430088	33.046	486825	33.046	88	50 - 200	0.000	+/-0.50	
SG-RB-2104151020 (21D0182-02)		(Water)	Lab File ID: NT1421043037.D				Analyzed: 05/01/21 12:22		
Fluorene-d10	527542	18.772	526731	18.772	100	50 - 200	0.000	+/-0.50	
Anthracene-d10	460304	22.214	481292	22.214	96	50 - 200	0.000	+/-0.50	
Benzo(e)pyrene-d12	419029	33.046	486825	33.046	86	50 - 200	0.000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270E-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	21D0182
Client:	Anchor QEA, LLC	Project:	Gasco Siltronic - US Moorings
Sequence:	SJD0347	Instrument:	NT14
		Calibration:	EE00019

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (BJD0501-BLK2)		(Water)	Lab File ID: NT1421043033S.D					Analyzed: 05/01/21 09:10	
Fluorene-d10	632635	18.762	615800	18.774	103	50 - 200		+/-0.50	
Anthracene-d10	566991	22.205	563384	22.216	101	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	557788	33.036	606671	33.037	92	50 - 200		+/-0.50	
SG-FB-2104151048 (21D0182-01)		(Water)	Lab File ID: NT1421043036S.D					Analyzed: 05/01/21 11:34	
Fluorene-d10	600781	18.762	615800	18.774	98	50 - 200		+/-0.50	
Anthracene-d10	531825	22.205	563384	22.216	94	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	523336	33.036	606671	33.037	86	50 - 200		+/-0.50	
SG-RB-2104151020 (21D0182-02)		(Water)	Lab File ID: NT1421043037S.D					Analyzed: 05/01/21 12:22	
Fluorene-d10	617189	18.762	615800	18.774	100	50 - 200		+/-0.50	
Anthracene-d10	548317	22.205	563384	22.216	97	50 - 200		+/-0.50	
Benzo(e)pyrene-d12	507165	33.036	606671	33.037	84	50 - 200		+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0182

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
SG-FB-2104151048 21D0182-01	04/15/21 10:48	04/16/21 10:30	04/21/21 10:10	5	7	05/01/21 11:34	10	40	
SG-FB-2104151048 21D0182-01	04/15/21 10:48	04/16/21 10:30	04/21/21 10:10	5	7	05/01/21 11:34	10	40	
SG-RB-2104151020 21D0182-02	04/15/21 10:20	04/16/21 10:30	04/21/21 10:10	5	7	05/01/21 12:22	10	40	
SG-RB-2104151020 21D0182-02	04/15/21 10:20	04/16/21 10:30	04/21/21 10:10	5	7	05/01/21 12:22	10	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0182

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Solid Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.03	5.0	ug/kg
cis-Decalin	0.5	5.0	ug/kg
Naphthalene	0.4	5.0	ug/kg
1-Methylnaphthalene	0.4	5.0	ug/kg
2-Methylnaphthalene	0.4	5.0	ug/kg
Biphenyl	0.3	5.0	ug/kg
2,6-Dimethylnaphthalene	0.4	5.0	ug/kg
Acenaphthylene	0.3	5.0	ug/kg
Acenaphthene	0.5	5.0	ug/kg
Dibenzofuran	0.4	5.0	ug/kg
2,3,5-Trimethylnaphthalene	0.4	5.0	ug/kg
Fluorene	0.5	5.0	ug/kg
Benzo(b)thiophene	0.4	5.0	ug/kg
Phenanthrene	0.9	5.0	ug/kg
Anthracene	0.05	5.0	ug/kg
Carbazole	0.7	5.0	ug/kg
1-Methylphenanthrene	0.5	5.0	ug/kg
Fluoranthene	1.4	5.0	ug/kg
Dibenzothiophene	0.7	5.0	ug/kg
Pyrene	1.0	5.0	ug/kg
Benzo(a)anthracene	1.4	5.0	ug/kg
Chrysene	0.7	5.0	ug/kg
Benzo(b)fluoranthene	0.8	5.0	ug/kg
Benzo(j)fluoranthene	0.7	5.0	ug/kg
Benzo(k)fluoranthene	0.8	5.0	ug/kg
Benzofluoranthenes, Total	3.0	10.0	ug/kg
Benzo(e)pyrene	0.6	5.0	ug/kg
Benzo(a)pyrene	1.0	5.0	ug/kg
Indeno(1,2,3-cd)pyrene	0.4	5.0	ug/kg
Dibenzo(a,h)anthracene	0.7	5.0	ug/kg
Benzo(g,h,i)perylene	0.5	5.0	ug/kg
Perylene	0.4	5.0	ug/kg
Benzo(b)naphtho(2,1-d)thiophene	5.0	5.0	ug/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0182

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Water Instrument: NT14

Analyte	MDL	RL	Units
trans-Decalin	0.007	0.100	ug/L
cis-Decalin	0.007	0.100	ug/L
Naphthalene	0.011	0.100	ug/L
1-Methylnaphthalene	0.010	0.100	ug/L
2-Methylnaphthalene	0.010	0.100	ug/L
Biphenyl	0.012	0.100	ug/L
2,6-Dimethylnaphthalene	0.013	0.100	ug/L
Acenaphthylene	0.006	0.100	ug/L
Acenaphthene	0.011	0.100	ug/L
Dibenzofuran	0.009	0.100	ug/L
2,3,5-Trimethylnaphthalene	0.008	0.100	ug/L
Fluorene	0.007	0.100	ug/L
Benzo(b)thiophene	0.009	0.100	ug/L
Phenanthrene	0.009	0.100	ug/L
Anthracene	0.025	0.100	ug/L
Carbazole	0.028	0.100	ug/L
1-Methylphenanthrene	0.005	0.100	ug/L
Fluoranthene	0.007	0.100	ug/L
Dibenzothiophene	0.021	0.100	ug/L
Pyrene	0.014	0.100	ug/L
Benzo(a)anthracene	0.017	0.100	ug/L
Chrysene	0.010	0.100	ug/L
Benzo(b)fluoranthene	0.010	0.100	ug/L
Benzo(j)fluoranthene	0.038	0.100	ug/L
Benzo(k)fluoranthene	0.010	0.100	ug/L
Benzo(e)pyrene	0.014	0.100	ug/L
Benzo(a)pyrene	0.022	0.100	ug/L
Indeno(1,2,3-cd)pyrene	0.014	0.100	ug/L
Dibenzo(a,h)anthracene	0.013	0.100	ug/L
Benzo(g,h,i)perylene	0.009	0.100	ug/L
Perylene	0.032	0.100	ug/L
Benzo(b)naphtho(2,1-d)thiophene	0.100	0.100	ug/L
C1-Decalins		0.020	ug/L
C2-Decalins		0.020	ug/L
C3-Decalins		0.020	ug/L
C4-Decalins		0.020	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8270E-SIM

Laboratory: Analytical Resources, Inc. SDG: 21D0182

Client: Anchor QEA, LLC Project: Gasco Siltronic - US Moorings

Matrix: Water Instrument: NT14

Analyte	MDL	RL	Units
C1-Naphthalenes		0.020	ug/L
C2-Naphthalenes		0.020	ug/L
C3-Naphthalenes		0.020	ug/L
C4-Naphthalenes		0.020	ug/L
C1-Fluorenes		0.020	ug/L
C4-Phenanthrenes/Anthracenes		0.020	ug/L
C1-Fluoranthenes/Pyrenes		0.020	ug/L
C2-Fluorenes		0.020	ug/L
C3-Fluorenes		0.020	ug/L
C1-Dibenzothiophenes		0.020	ug/L
C2-Dibenzothiophenes		0.020	ug/L
C3-Dibenzothiophenes		0.020	ug/L
C4-Dibenzothiophenes		0.020	ug/L
C1-Phenanthrenes/Anthracenes		0.020	ug/L
C2-Phenanthrenes/Anthracenes		0.020	ug/L
C3-Phenanthrenes/Anthracenes		0.020	ug/L
C2-Fluoranthenes/Pyrenes		0.020	ug/L
C3-Fluoranthenes/Pyrenes		0.020	ug/L
C4-Fluoranthenes/Pyrenes		0.020	ug/L
C1-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C2-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C3-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C4-Benzo(a)anthracenes/Chrysenes		0.020	ug/L
C1-Benzothiophenes		0.020	ug/L
C2-Benzothiophenes		0.020	ug/L
C3-Benzothiophenes		0.020	ug/L
C1-Naphthobenzothiophenes		0.020	ug/L
C2-Naphthobenzothiophenes		0.020	ug/L
C3-Naphthobenzothiophenes		0.020	ug/L
C4-Naphthobenzothiopenes		0.020	ug/L
C1-Dibenzo(a)anthracenes		0.020	ug/L
C2-Dibenzo(a)anthracenes		0.020	ug/L
C3-Dibenzo(a)anthracenes		0.020	ug/L

I-8227

Certificate of Analysis

SIGMA-ALDRICH

Product Name	Pentachlorophenol, 97%
Product Number	P2604
Product Brand	ALDRICH
CAS Number	87-86-5
Molecular Formula	C_6Cl_5OH
Molecular Weight	266.34

TEST	SPECIFICATION	LOT 07119HO RESULTS
APPEARANCE	WHITE TO OFF-WHITE OR LIGHT BLUE POWDER	OFF-WHITE POWDER
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD
TITRATION	97.5% - 102.5% (WITH AGNO3 AFTER OXYGEN	100.5 % (WITH AGNO3 AFTER OXYGEN COMBUSTION)
GAS LIQUID CHROMATOGRAPHY	97.5% (MINIMUM)	99.9 %
SOLUBILITY		100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION
QUALITY CONTROL ACCEPTANCE DATE		JUNE 2001

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Certificate of Analysis

SIGMA-ALDRICH

Product Name	2,4,6-Tribromophenol, 99%
Product Number	137715
Product Brand	ALDRICH
CAS Number	118-79-6
Molecular Formula	$Br_3C_6H_2OH$
Molecular Weight	330.80

TEST	SPECIFICATION	LOT 03410KL RESULTS
APPEARANCE	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	OFF-WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE
MELTING POINT		93 DEGREES CELSIUS
GAS LIQUID CHROMATOGRAPHY		99.4 %

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Please wait...

I 8244

Certificate of Analysis

G006587
7/19/18

PAH Mixture

Product Number: US-106N **Page:** 1 of 1

Lot Number: CS-2324 **Lot Issue Date:** 04-May-2018 **Expiration Date:** 31-May-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
acenaphthene	000083-32-9	RM09993	2003 ± 10 µg/mL
acenaphthylene	000208-96-8	RM09993	2002 ± 10 µg/mL
anthracene	000120-12-7	RM03477	2004 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM13735	2007 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM09988	2002 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM10962	2009 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM10337	2008 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM13734	2006 ± 10 µg/mL
chrysene	000218-01-9	RM11308	2002 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	2001 ± 10 µg/mL
fluoranthene	000206-44-0	RM12277	2006 ± 10 µg/mL
fluorene	000086-73-7	RM09441	2001 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM06789	2008 ± 10 µg/mL
naphthalene	000091-20-3	RM10445	2001 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2006 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2006 ± 10 µg/mL

Matrix: methylene chloride/benzene (1:1)

Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-28018

Catalog Number: DLM-677-0

Product Information

Chemical Purity Specification:	≥ 98%
MW*: ** For isotopically labeled compounds, MW listed is for the fully enriched product.*	292.43
Labeled CAS Number:	13250-98-1
Unlabeled CAS Number:	53-70-3
Chemical Formula:	C22D14
Storage:	Store at room temperature away from light and moisture.

G 01 04 36 JK
Read 11/09/18

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.6%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	99.3%
GC/MS for Identification	Conforms
GC/MS for Isotopic Enrichment	99.3%
Melting Point Range Determination	257-267°C

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

Certificate of Analysis

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-28018

Catalog Number: DLM-677-0

Additional Testing Information:
Retest/Review Date: 02/28/27

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

2-Chloronaphthalene

CATALOG NUMBER	N-10323-100MG
LOT NUMBER	7762100
DATE CERTIFIED	05/22/18
EXPIRATION DATE	05/31/24
CAS NUMBER	91-58-7
MOLECULAR FORMULA	C10H7Cl
MOLECULAR WEIGHT	162.62
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.
ISO GUIDE 34 CERTIFIED	[ ]

Analytical Test	Value
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

G010438
2-Chloronaphthalene NEAT
Solvent / Lot: NEAT
Prep: 11/10/2018 by VS
Exp: 5/31/2024
Location: BOX P

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 3 (3/2015)

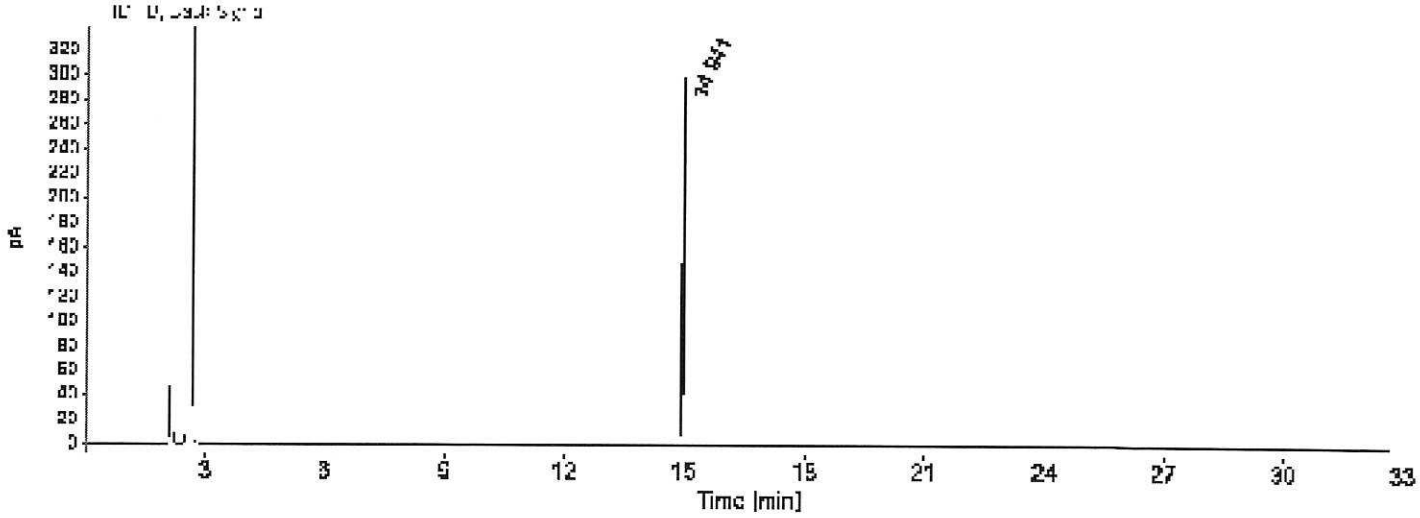
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Gas Chromatography / Flame Ionization Detector (GC/FID)

Data file: C:\Chem32\1\Data\2018 Data\0518\2-Chloronaphthalene.D
Sample name: 2-Chloronaphthalene

Instrument: GC3 **Location:** 209
Injection date: 5/22/2018 1:12:52 PM **Injection volume:** 1.0uL
Acq. method: REAR_SCREEN.M
Col Type: pn# 7HG-G006-17-C **Diameter** 250.000 **Length** 30.000



Signal: FID1 B, Back Signal

RT [min]	Type	Width [min]	Area	Height	Area%
14.941	BB	0.0410	808.8124	308.5675	100.0000
		Sum	808.8124		

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

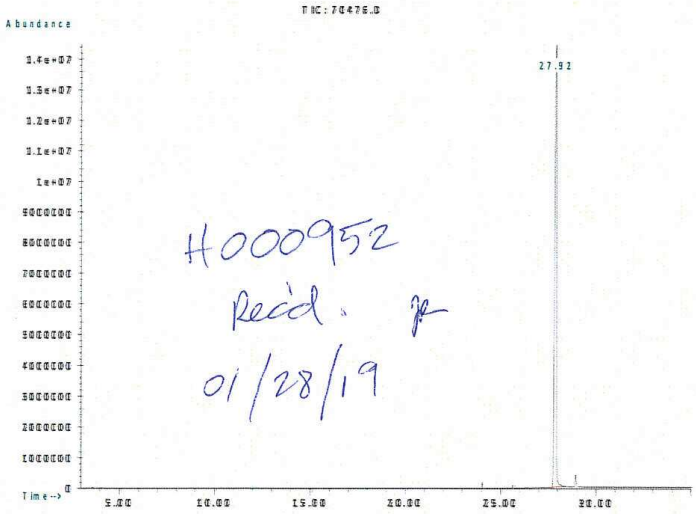
Part Number:	70476	**Solvent(s):**	**Lot#**
Lot Number:	011619	Methylene chloride	102669
Description:	Benzo(j)fluoranthene		
Expiration Date:	011624		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	1000		
NIST Test ID#:	2684186	5E-05 Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	25.0	0.001 Flask Uncertainty	

Formulated By: Mario Luis — 011619 DATE

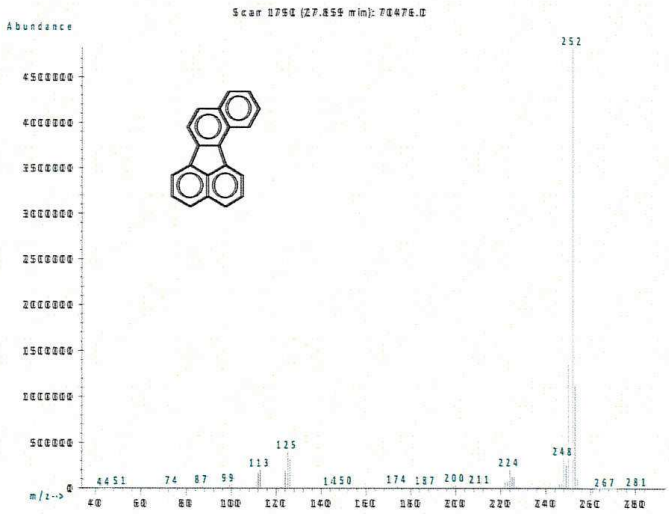
Reviewed By: Pedro L. Rentas — 011619 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02558	1004.2	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.



H000952
Recd. JP
01/28/19



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0149213

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

C E R T I F I E D V A L U E S

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4	2,018.3 µg/mL	+/- 11.7348	µg/mL	Gravimetric
	CAS # 3855-82-1 (Lot PR-18488)		+/- 90.9069	µg/mL	Unstressed
	Purity 99%		+/- 100.8725	µg/mL	Stressed
2	Naphthalene-d8	2,013.2 µg/mL	+/- 11.7047	µg/mL	Gravimetric
	CAS # 1146-65-2 (Lot M-1452)		+/- 90.6742	µg/mL	Unstressed
	Purity 99%		+/- 100.6143	µg/mL	Stressed
3	Acenaphthene-d10	2,017.4 µg/mL	+/- 11.7294	µg/mL	Gravimetric
	CAS # 15067-26-2 (Lot PR-28021)		+/- 90.8657	µg/mL	Unstressed
	Purity 99%		+/- 100.8267	µg/mL	Stressed
4	Phenanthrene-d10	2,013.3 µg/mL	+/- 11.7057	µg/mL	Gravimetric
	CAS # 1517-22-2 (Lot PR-27621)		+/- 90.6817	µg/mL	Unstressed
	Purity 99%		+/- 100.6226	µg/mL	Stressed
5	Chrysene-d12	2,016.5 µg/mL	+/- 11.7241	µg/mL	Gravimetric
	CAS # 1719-03-5 (Lot PR-29295)		+/- 90.8244	µg/mL	Unstressed
	Purity 99%		+/- 100.7809	µg/mL	Stressed
6	Perylene-d12	2,013.8 µg/mL	+/- 11.7086	µg/mL	Gravimetric
	CAS # 1520-96-3 (Lot PR-27342)		+/- 90.7043	µg/mL	Unstressed
	Purity 99%		+/- 100.6476	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

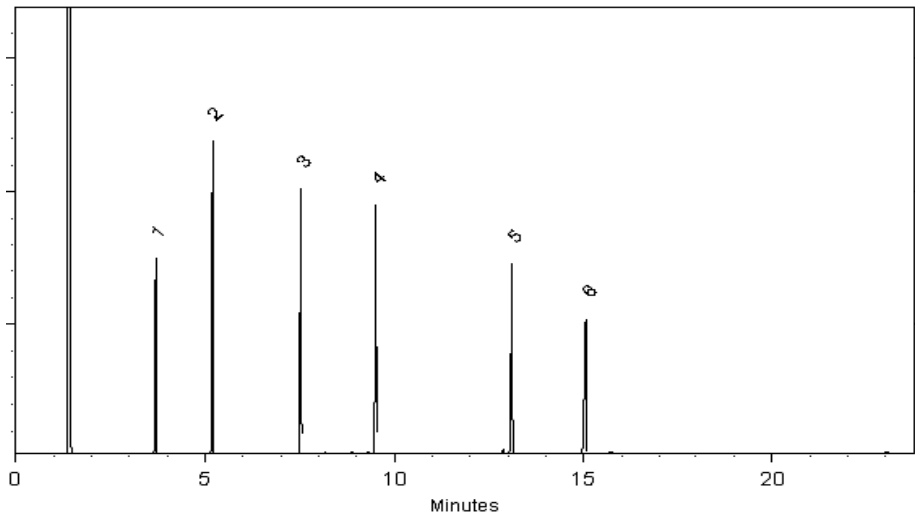
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Walker Workman - Operations Technician I

Date Mixed: 15-May-2019 **Balance:** B345965662

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-May-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

H009550
SVOA-d14-Dibenzo(a,h)anthracene-2500ug/ml
Solvent / Lot: DCM/H008760
Prep: 10/2/2019 by VS
Exp: 10/2/2020
Location: Warm to 30C

Data :
Repor

L910C

H009569
LOW SIM PAH CAL-5ug/ml
Solvent / Lot: DCM/H008760
Prep: 10/3/2019 by VS
Exp: 5/17/2020
Location:

ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D
Lab Smp Id: H009569-250
Inj Date : 03-OCT-2019 11:00 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : H009569-250
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20191003.b\lowsim.m
Meth Date : 03-Oct-2019 12:25 van Quant Type: ISTD
Cal Date : 03-OCT-2019 10:30 Cal File: NT1119100301.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: PAH.sub
Target Version: 4.14
Processing Host: VANS

@ 250
Compard to old mix

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	6.650	6.650	(1.000)	150999	200.000	
	2 Naphthalene	128	6.677	6.677	(1.004)	196187	256.450	256
	3 Benzo(b)thiophene	134	6.930	6.930	(1.042)	159213	256.263	256
$	4 2-Methylnaphthalene-d10	152	7.618	7.618	(1.146)	112539	239.085	239
	5 2-Methylnaphthalene	142	7.670	7.670	(1.153)	141284	258.781	259
	6 1-Methylnaphthalene	142	7.923	7.933	(1.191)	141015	257.499	257
	7 2-Chloronaphthalene	162	8.574	8.574	(0.889)	130821	262.182	262
	8 Biphenyl	154	8.542	8.553	(0.885)	167818	263.154	263
	9 2,6-Dimethylnaphthalene	156	8.605	8.605	(0.892)	128101	261.452	261
	10 Acenaphthylene	152	9.494	9.494	(0.984)	155523	257.952	258
*	11 Acenaphthene-d10	164	9.648	9.648	(1.000)	73006	200.000	
	12 Acenaphthene	153	9.702	9.702	(1.006)	111115	261.393	261
	13 Dibenzofuran	168	9.906	9.906	(1.027)	142747	262.407	262
	14 2,3,5-Trimethylnaphthalene	170	10.007	10.007	(1.037)	101355	262.119	262
	16 Fluorene	166	10.538	10.538	(1.092)	115264	260.004	260
	17 Dibenzothiophene	184	12.142	12.142	(0.986)	154483	262.360	262
*	18 Phenanthrene-d10	188	12.311	12.310	(1.000)	128794	200.000	
	19 Phenanthrene	178	12.353	12.353	(1.003)	155069	260.459	260
	21 Anthracene	178	12.405	12.405	(1.008)	181695	259.415	259
	22 Carbazole	167	13.095	13.095	(1.064)	179113	260.252	260
	23 1-Methylphenanthrene	192	13.348	13.348	(1.084)	146014	260.198	260
$	24 Fluoranthene-d10	212	14.411	14.411	(1.171)	136675	239.312	239
	25 Fluoranthene	202	14.439	14.439	(1.173)	177769	261.870	262
	26 Pyrene	202	14.939	14.939	(1.214)	181289	262.196	262
	27 Benzo(a)anthracene	228	16.944	16.944	(0.995)	142356	260.815	261
*	28 Chrysene-d12	240	17.035	17.043	(1.000)	97091	200.000	
	29 Chrysene	228	17.085	17.085	(1.003)	160479	268.375	268
	30 Benzo(b)fluoranthene	252	18.755	18.755	(0.951)	144336	274.209	274 110%
	31 Benzo(k)fluoranthene	252	18.793	18.793	(0.953)	165195	266.919	267
	32 Benzo(j)fluoranthene	252	18.851	18.851	(0.956)	169926	269.517	270
	34 Benzo(e)pyrene	252	19.427	19.437	(0.985)	146932	270.097	270
	35 Benzo(a)pyrene	252	19.533	19.533	(0.990)	139050	268.012	268
*	36 Perylene-d12	264	19.725	19.725	(1.000)	104829	200.000	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
37 Perylene	252	19.783	19.783	(1.003)	147335	269.490	269
$ 38 Dibenzo(a,h)anthracene-d14	292	22.044	22.044	(1.118)	93336	231.868	232
39 Dibenzo(a,h)anthracene	278	22.155	22.155	(1.123)	117340	266.540	267
40 Indeno(1,2,3-cd)pyrene	276	22.177	22.177	(1.124)	137482	266.881	267
41 Benzo(g,h,i)perylene	276	23.285	23.285	(1.180)	128893	267.641	268

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1119100302.D
Lab Smp Id: H009569-250
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20191003.b\lowsim.m
Misc Info:

Calibration Date: 03-OCT-2019
Calibration Time: 10:30

Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	201797	100899	403594	150999	-25.17
11 Acenaphthene-d10	96586	48293	193172	73006	-24.41
18 Phenanthrene-d10	169149	84575	338298	128794	-23.86
28 Chrysene-d12	126783	63392	253566	97091	-23.42
36 Perylene-d12	124340	62170	248680	104829	-15.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	6.65	6.15	7.15	6.65	0.00
11 Acenaphthene-d10	9.65	9.15	10.15	9.65	0.00
18 Phenanthrene-d10	12.31	11.81	12.81	12.31	0.00
28 Chrysene-d12	17.04	16.54	17.54	17.04	-0.05
36 Perylene-d12	19.73	19.23	20.23	19.73	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1119100302.D

Lab ID: H009569-250
nt11.i, 20191003.b\lowsim.m, 03-OCT-2019 11:00

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** CHECK CAL FILE ON TARGET REPORT! QUANT FROM CCAL. **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

RRT check based on Ccal File: NT1119100301.D

On Column LOD for nt11.i, 20191003.b\lowsim.m, PAH.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20191003.b\NT1119100302.D

Date : 03-OCT-2019 11:00

Client ID:

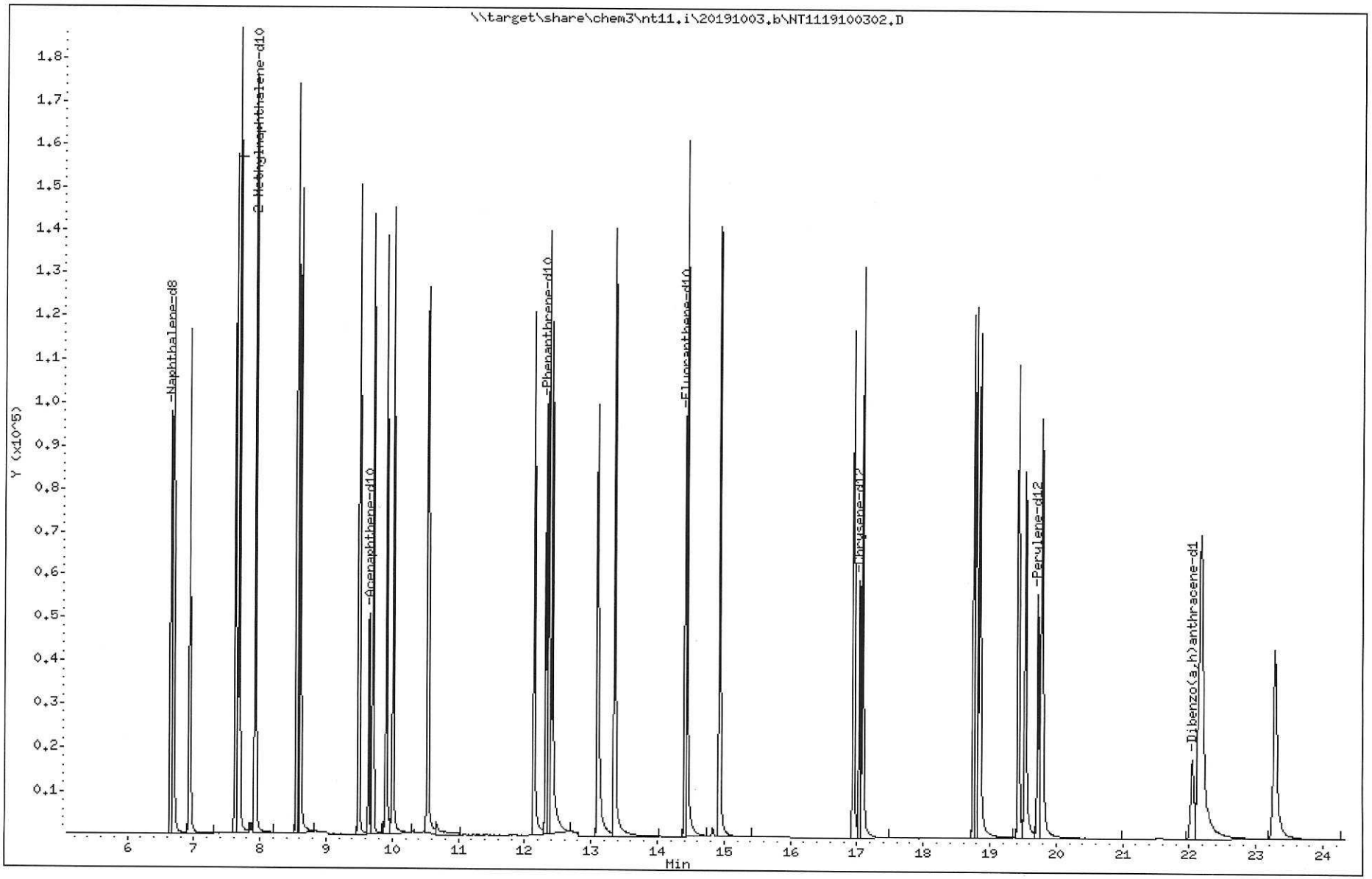
Sample Info: H009569-250

Column phase: Rxi-17Sil MS

Instrument: nt11.i

Operator: VTS

Column diameter: 0.25



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0149554

Description : SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methylnaphthalene-d10 **CAS #** 7297-45-2 (Lot AC-257) **Purity** 98%	2,000.2 µg/mL	+/- 11.7382 µg/mL +/- 90.1034 µg/mL +/- 99.9779 µg/mL	Gravimetric Unstressed Stressed
2	Fluoranthene-d10 **CAS #** 93951-69-0 (Lot PR-20668) **Purity** 98%	2,000.2 µg/mL	+/- 11.7382 µg/mL +/- 90.1034 µg/mL +/- 99.9779 µg/mL	Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

H010524
SOMO 1.0 SIM DMC
Solvent / Lot: A0149554
Prep: 10/26/2019 by VS
Exp: 4/30/2025
Location:

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cheryl Graham - Mix Technician **Date Mixed:** 26-May-2019 **Balance:** B345965662

Justine Alderson - Operations Tech-ARM QC **Date Passed:** 29-May-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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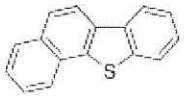
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
1,2-Benzodiphenylene sulfide - 99%



Product Number:	**255122**
Batch Number:	**MKCL4273**
Brand:	ALDRICH
CAS Number:	239-35-0
MDL Number:	MFCD00010043
Formula:	C16H10S
Formula Weight:	234.32 g/mol
Quality Release Date:	25 NOV 2019

Test	Specification	Result
Appearance (Color)	White to Off White	White
Appearance (Form) Crystalline Powder or Solid	Conforms to Requirements	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Carbon Content	80.8 - 83.2 %	82.0 %
Nitrogen Content	13.4 - 14.0 %	13.7 %
Purity (TLC)	≥ 99 %	> 99 %
Solubility (Turbidity) 2.5% in CHCL3	Clear to Slightly Hazy	Clear
Solubility (Color)	Colorless to Faint Yellow	Colorless

Michael Grady, Manager
Quality Control
Milwaukee, WI US

I000979
Benzo(b)naphtho(2,1-d)thiophene
Solvent / Lot: NA
Prep: 1/31/2020 by VS
Exp: 7/29/2040
Location: R-19

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DI-N-OCTYL PHTHALATE
(Isotopic Label & Enrichment Specification) (RING-D4, 98%)

Lot Number: PR-14719

Catalog Number: DLM-1630-0

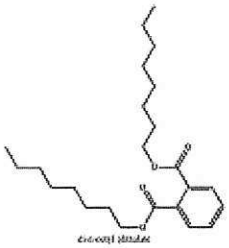
Product Information

Chemical Purity Specification: ≥ 98%

MW*: 394.58
** For isotopically labeled compounds, MW listed is for the fully enriched product.*

Labeled CAS Number: 93952-13-7

Unlabeled CAS Number: 117-84-0



Chemical Formula: C6D4-1,2-(CO2(CH2)7CH3)2

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Jeffrey O Neill
Jeffrey O'Neill, Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.8%
GC/MS for Isotopic Enrichment	99.1%

I2078
I2079
I2080

Additional Testing Information:
Retest/Review Date: 01/17/23

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 022620
Description: PAH Standard
30 components
Expiration Date: 022625
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s): Methylene chloride **Lot#** 102669

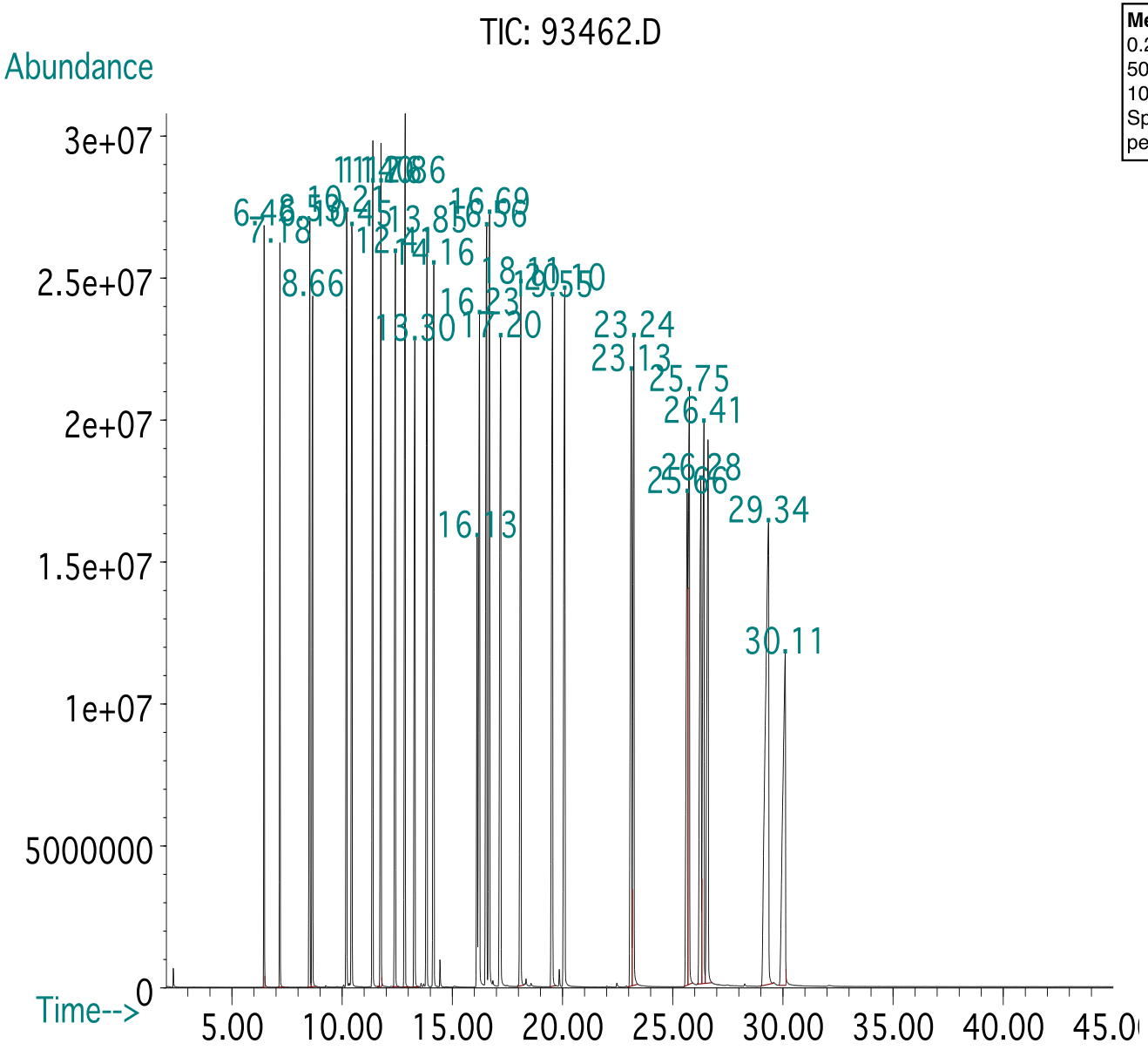
5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 20.0 0.003 Flask Uncertainty

Formulated By: Eli Aliaga 022620 DATE

Reviewed By: Pedro L. Rentas 022620 DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	060118	0.50	10.00	0.042	2000.1	999.5	9.3	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	060118	0.50	10.00	0.042	2000.2	999.5	9.4	208-96-8	N/A	N/A
3. Anthracene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	060118	0.50	10.00	0.042	2000.9	999.9	9.4	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.6	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	060118	0.50	10.00	0.042	2000.7	999.8	9.4	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	060118	0.50	10.00	0.042	2000.6	999.7	9.4	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.3	191-24-2	N/A	N/A
9. Carbazole	10007	060118	0.50	10.00	0.042	2000.7	999.7	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	060118	0.50	10.00	0.042	2000.5	999.7	9.4	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	060118	0.50	10.00	0.042	2000.5	999.6	9.4	206-44-0	N/A	orl-rat 2000mg/kg
13. Fluorene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.4	193-39-5	N/A	N/A
15. Naphthalene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16. Phenanthrene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17. Pyrene	10007	060118	0.50	10.00	0.042	2000.0	999.4	9.4	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18. Benzo(e)pyrene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	192-97-2	N/A	N/A
19. Biphenyl	94851	021119	0.50	10.00	0.042	2003.6	1001.2	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	021119	0.50	10.00	0.042	2004.1	1001.4	9.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	021119	0.50	10.00	0.042	2000.9	999.9	9.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	021119	0.50	10.00	0.042	2002.7	1000.7	9.4	132-65-0	N/A	orl-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	021119	0.50	10.00	0.042	2000.7	999.8	9.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.0	999.9	9.4	90-12-0	N/A	orl-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	91-57-6	N/A	orl-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	021119	0.50	10.00	0.042	2003.3	1001.1	13.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	021119	0.50	10.00	0.042	2003.0	1000.9	9.4	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28. Perylene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	021119	0.50	10.00	0.042	2000.3	999.6	9.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.5	2245-38-7	N/A	N/A

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

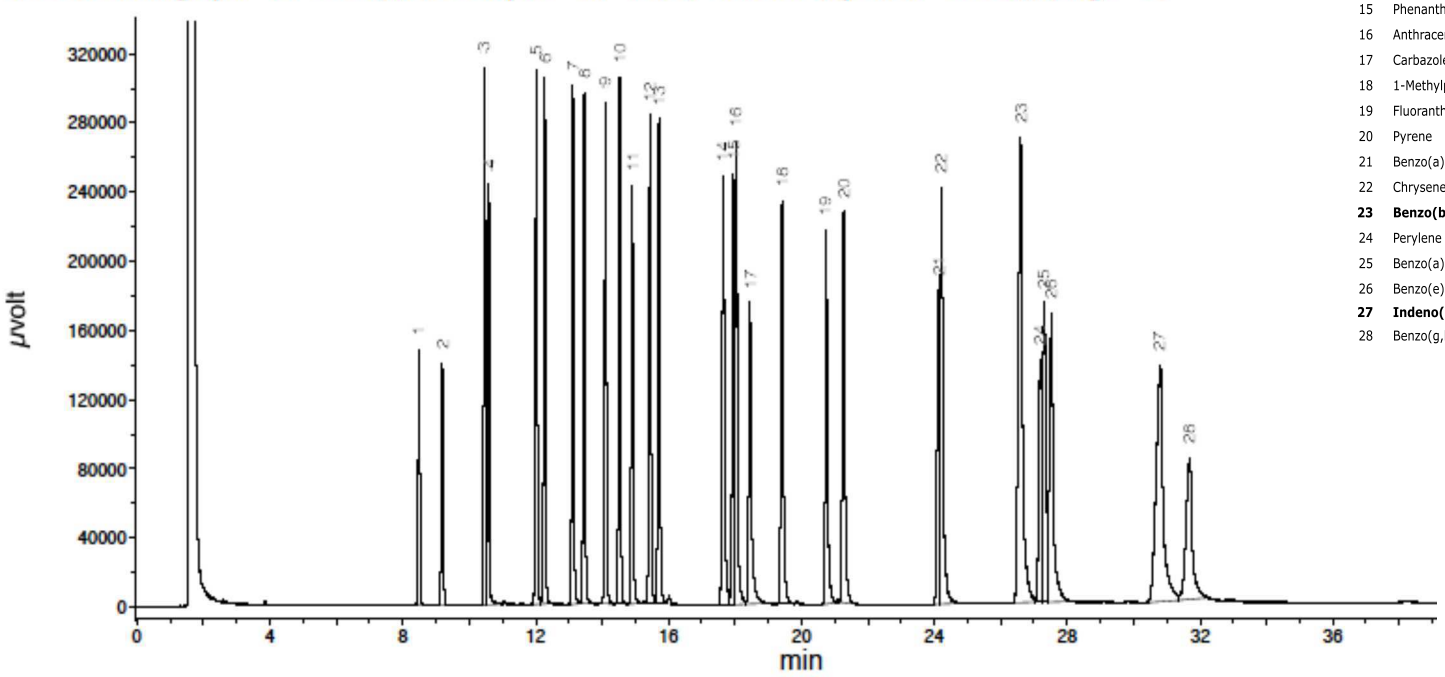
Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

Run 47, "P93462 L022620 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23999 points at 10 points/second.
Created: Wed, Mar 4, 2020 at 4:09:15 AM.
Sampled: Sequence "030220-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments

GC9-M2 Analysis by Candice Warren
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



Peak No.	Name	FID RT (min.)
1	Decahydronaphthalene (Decalin) (isomer)	8.96
2	Decahydronaphthalene (Decalin) (isomer)	9.67
3	Naphthalene	10.96
4	Thianaphthene	11.09
5	2-Methylnaphthalene	12.53
6	1-Methylnaphthalene	12.78
7	Biphenyl	13.63
8	2,6-Dimethylnaphthalene	13.99
9	Acenaphthylene	14.63
10	Acenaphthene	15.07
11	Dibenzofuran	15.44
12	2,3,5-Trimethylnaphthalene	15.98
13	Fluorene	16.26
14	**Pentachlorophenol/Dibenzothiophene**	**18.22**
15	Phenanthrene	18.51
16	Anthracene	18.62
17	Carbazole	19.01
18	1-Methylphenanthrene	20.00
19	Fluoranthene	21.34
20	Pyrene	21.88
21	Benzo(a)anthracene	24.74
22	Chrysene	24.84
23	**Benzo(b)fluoranthene/Benzo(k)fluoranthene**	**27.36**
24	Perylene	28.04
25	Benzo(a)pyrene	28.18
26	Benzo(e)pyrene	28.42
27	**Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene**	**32.26**
28	Benzo(g,h,i)perylene	33.30

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0154854

Description : SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2025 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Methylnaphthalene-d10	2,017.8 µg/mL	+/- 11.8417 µg/mL	Gravimetric
	CAS # 7297-45-2 (Lot AC-257)		+/- 90.8981 µg/mL	Unstressed
	Purity 98%		+/- 100.8597 µg/mL	Stressed
2	Fluoranthene-d10	1,999.2 µg/mL	+/- 11.7324 µg/mL	Gravimetric
	CAS # 93951-69-0 (Lot PR-20668)		+/- 90.0593 µg/mL	Unstressed
	Purity 98%		+/- 99.9290 µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

I 4369

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 98%)

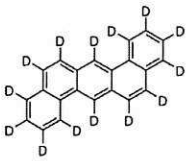
Lot Number: PR-30906

Catalog Number: DLM-677-0

Product Information

Chemical Purity Specification: ≥ 98%

MW*: 292.43
** For isotopically labeled compounds, MW listed is for the fully enriched product.*



Labeled CAS Number: 13250-98-1

Unlabeled CAS Number: 53-70-3

Chemical Formula: C22D14

I4874

Storage: Store at room temperature away from light and moisture.

Intended Use: For Research Use Only. Not for use in diagnostic procedures.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Sashi Sivendran-Basak

Sashi Sivendran-Basak, Ph.D., Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
1H NMR for Isotopic Enrichment	99.4%
2H NMR for Chemical Purity	Pass
GC/FID for Chemical Purity	99.4%
GC/MS for Identification	Conforms
Melting Point Range Determination	261-267°C

Additional Testing Information:

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291
Description: GC/MS Tuning Mix
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Lot Number: CL10999
Certification Date: May 9, 2014
Expiration Date: December 31, 2023
Revision Date: June 19, 2015

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 4.575%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 2.420%
4,4'-DDT	50-29-3	1000	± 2.772%
Pentachlorophenol	87-86-5	1000	± 2.616%

I 5998

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova
Certified Reference Materials

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA
ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL111106I3_us

Certificate of Analysis

Produced by Phenova
6390 Joyce Drive STE 100, Golden, CO 80403 USA ▪ Tel: 303-940-0033 ▪ Fax: 303-940-0043 ▪ info@phenova.com
Access your Safety Data Sheets and digital Certificates at www.phenova.com/documents.

1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO 17034[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in calibration, calibration verification, quantification, identification and other appropriate analytical control applications. The product is intended for routine laboratory analysis and research purposes only. Only trained personnel should handle this product.

4. Handling and Usage Notes: Store according to recommended conditions listed and avoid prolonged exposure to light. Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all analytes in the mixture. Considerations should be made related to repeated use of the opened product. Once opened, exposure to light, air, heat, objects, and additional transfer vessels may cause evaporation, degradation or contamination resulting in changes in concentration, uncertainty and stability duration. Store opened standards in a clean, tightly capped vessel under the recommended temperature. Appropriate controls, such as the use of additional verification standards should be used to confirm the opened product is fit for purpose under repeated use conditions.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Safety Data Sheet (SDS) is available at www.phenova.com/documents.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO 17034. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO 17034.

12. Period of Validity: The Certified Values, Uncertainties and Expiration Date are based on the unopened product being stored according to the recommended storage condition listed and are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31 – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35 – Reference Material – General and Statistical Principles for Certification.
[3] ISO 17034 – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

CERTIFIED WEIGHT REPORT

Part Number:	**93462**	**Solvent(s):**	**Lot#**	
Lot Number:	092220	Methylene chloride	102669	
Description:	PAH Standard 30 components			
Expiration Date:	092225			
Recommended Storage:	Refrigerate (4 °C)			
Nominal Concentration (µg/mL):	1000			
NIST Test ID#:	23060	5E-05	Balance Uncertainty	
Volume(s) shown below were combined and diluted to (mL):	20.0	0.003	Flask Uncertainty	

		092220
Formulated By:	Benson Chan	DATE
		092220
Reviewed By:	Pedro L. Rentas	DATE

	Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	10007	060118	0.50	10.00	0.042	2000.1	999.5	9.3	83-32-9	N/A	ipr-rat 600mg/kg
2.	Acenaphthylene	10007	060118	0.50	10.00	0.042	2000.2	999.5	9.4	208-96-8	N/A	N/A
3.	Anthracene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.3	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4.	Benzo(a)anthracene	10007	060118	0.50	10.00	0.042	2000.9	999.9	9.4	56-55-3	N/A	N/A
5.	Benzo(a)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.6	9.3	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6.	Benzo(b)fluoranthene	10007	060118	0.50	10.00	0.042	2000.7	999.8	9.4	205-99-2	N/A	N/A
7.	Benzo(k)fluoranthene	10007	060118	0.50	10.00	0.042	2000.6	999.7	9.4	207-08-9	N/A	N/A
8.	Benzo(g,h,i)perylene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.3	191-24-2	N/A	N/A
9.	Carbazole	10007	060118	0.50	10.00	0.042	2000.7	999.7	9.4	86-74-8	N/A	ipr-mus 200mg/kg
10.	Chrysene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	218-01-9	0.2mg/m3	N/A
11.	Dibenzo(a,h)anthracene	10007	060118	0.50	10.00	0.042	2000.5	999.7	9.4	53-70-3	0.2mg/m3	N/A
12.	Fluoranthene	10007	060118	0.50	10.00	0.042	2000.5	999.6	9.4	206-44-0	N/A	orl-rat 2000mg/kg
13.	Fluorene	10007	060118	0.50	10.00	0.042	2000.4	999.6	9.4	86-73-7	N/A	ipr-mus 2 g/kg
14.	Indeno(1,2,3-cd)pyrene	10007	060118	0.50	10.00	0.042	2000.3	999.5	9.4	193-39-5	N/A	N/A
15.	Naphthalene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16.	Phenanthrene	10007	060118	0.50	10.00	0.042	2000.8	999.8	9.4	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17.	Pyrene	10007	060118	0.50	10.00	0.042	2000.0	999.4	9.4	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18.	Benzo(e)pyrene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	192-97-2	N/A	N/A
19.	Biphenyl	94851	021119	0.50	10.00	0.042	2003.6	1001.2	9.4	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20.	Decalin (49% cis, 51% trans)	94851	021119	0.50	10.00	0.042	2004.1	1001.4	9.4	91-17-8	N/A	N/A
21.	Dibenzofuran	94851	021119	0.50	10.00	0.042	2000.9	999.9	9.4	132-64-9	N/A	N/A
22.	Dibenzothiophene	94851	021119	0.50	10.00	0.042	2002.7	1000.7	9.4	132-65-0	N/A	orl-mus 470 mg/kg
23.	2,6-Dimethylnaphthalene	94851	021119	0.50	10.00	0.042	2000.7	999.8	9.4	581-42-0	N/A	N/A
24.	1-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.0	999.9	9.4	90-12-0	N/A	orl-rat 1840mg/kg
25.	2-Methylnaphthalene	94851	021119	0.50	10.00	0.042	2001.6	1000.2	9.4	91-57-6	N/A	orl-rat 1630mg/kg
26.	1-Methylphenanthrene	94851	021119	0.50	10.00	0.042	2003.3	1001.1	13.2	832-69-9	N/A	N/A
27.	Pentachlorophenol	94851	021119	0.50	10.00	0.042	2003.0	1000.9	9.4	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28.	Perylene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.4	198-55-0	N/A	N/A
29.	Thianaphthene	94851	021119	0.50	10.00	0.042	2000.3	999.6	9.4	95-15-8	N/A	N/A
30.	2,3,5-Trimethylnaphthalene	94851	021119	0.50	10.00	0.042	2003.3	1001.0	9.5	2245-38-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

I009060
SVOA PAH STD-RMP-1000ug/ml
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location: Fridge 19

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 092220
Description: Benzo(j)fluoranthene

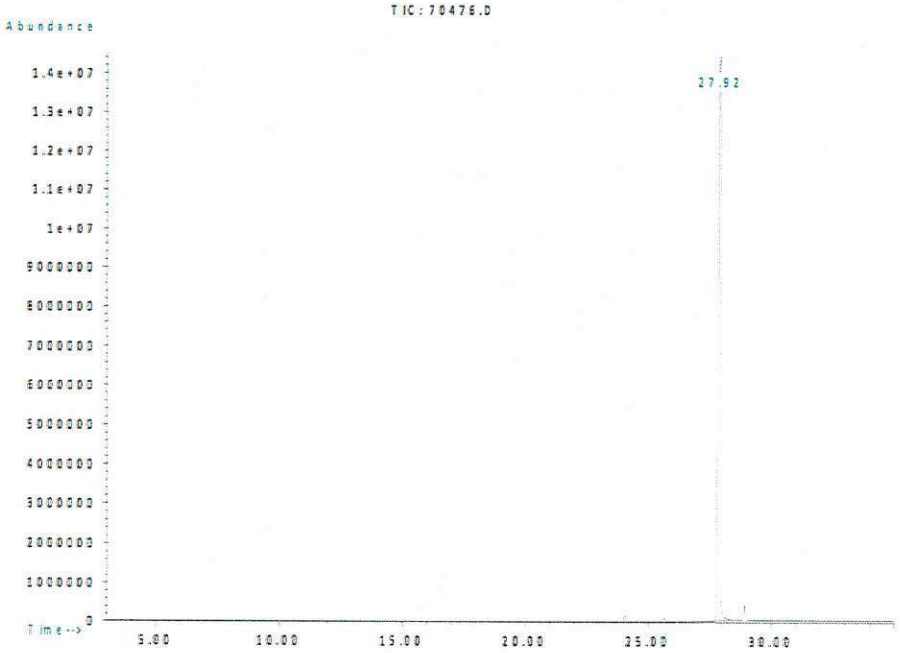
Solvent(s): **Lot#**
Methylene chloride 104929

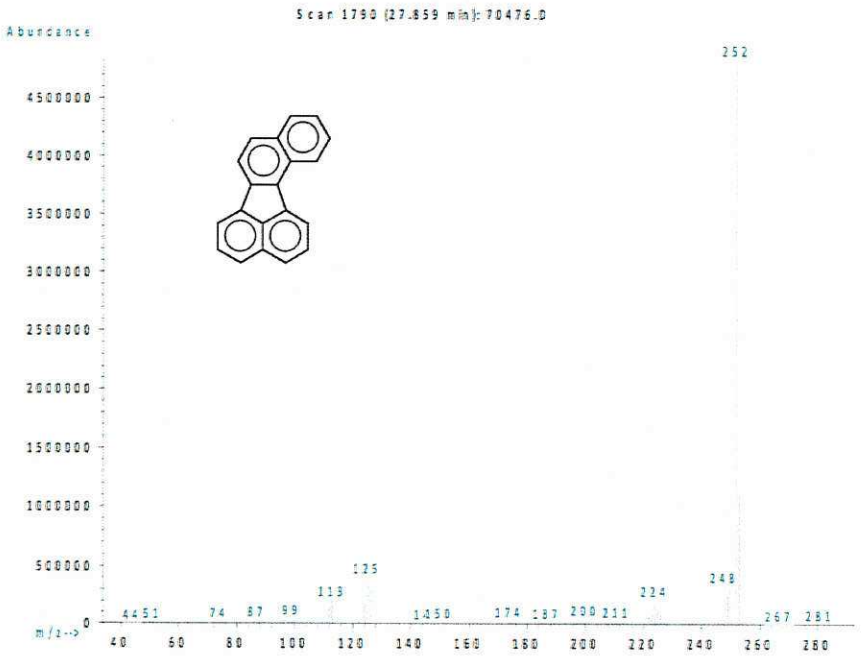
Expiration Date: 092225
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 23060 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

Formulated By:	Benson Chan	092220 DATE
Reviewed By:	Pedro L. Rentas	092220 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	3-CSZ-153-20	1000	98.1	0.2	0.02547	0.02552	1001.8	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD1M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9 min.), Rate = 10°C/min., Injector B= 200°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

I009061
Benzo(j)fluoranthene 1000ug/mL
Solvent / Lot: 092220
Prep: 10/3/2020 by VS
Exp: 9/22/2025
Location:

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

ilac-MRA

AB 11/19/2020

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0162879

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

I010724
SVOA 8270 IS Mix-2mg/ml
Solvent / Lot: DCM
Prep: 11/19/2020 by JZ
Exp: 5/31/2026
Location: GC

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2026 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4		2,014.5 µg/mL	+/- 11.7123 µg/mL		Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 90.7328 µg/mL		Unstressed
	Purity 99%			+/- 100.6792 µg/mL		Stressed
2	Naphthalene-d8		2,014.9 µg/mL	+/- 11.7150 µg/mL		Gravimetric
	CAS # 1146-65-2	(Lot M-1452)		+/- 90.7538 µg/mL		Unstressed
	Purity 99%			+/- 100.7026 µg/mL		Stressed
3	Acenaphthene-d10		2,011.9 µg/mL	+/- 11.6972 µg/mL		Gravimetric
	CAS # 15067-26-2	(Lot PR-30913)		+/- 90.6157 µg/mL		Unstressed
	Purity 99%			+/- 100.5493 µg/mL		Stressed
4	Phenanthrene-d10		2,015.7 µg/mL	+/- 11.7196 µg/mL		Gravimetric
	CAS # 1517-22-2	(Lot PR-29119)		+/- 90.7898 µg/mL		Unstressed
	Purity 99%			+/- 100.7425 µg/mL		Stressed
5	Chrysene-d12		2,004.0 µg/mL	+/- 11.6514 µg/mL		Gravimetric
	CAS # 1719-03-5	(Lot PR-30486)		+/- 90.2614 µg/mL		Unstressed
	Purity 99%			+/- 100.1561 µg/mL		Stressed
6	Perylene-d12		2,013.6 µg/mL	+/- 11.7072 µg/mL		Gravimetric
	CAS # 1520-96-3	(Lot PR-30020)		+/- 90.6938 µg/mL		Unstressed
	Purity 99%			+/- 100.6359 µg/mL		Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

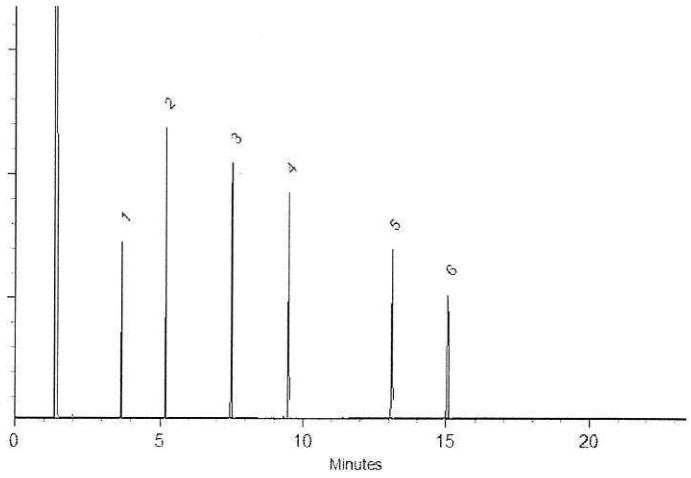
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 23-Jul-2020 **Balance:** B251644995

Justine Albertson
Justine Albertson - Operations Tech-ARM QC

Date Passed: 24-Jul-2020

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.